

# 2013

## Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report



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11/17/2013

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## Acknowledgements

Miigwech to all *Keweenaw Bay Indian Community Tribal Members* who took the time and effort to complete and return this year's comprehensive Wildlife and Natural Resources Survey. All of your insights and opinions are extremely valuable to the ongoing and future guidance of policies and projects—your contributions help to ensure that our priorities reflect that of the Keweenaw Bay Indian Community.

Miigwech to all *Volunteers* who contributed over one-hundred hours of their time in the creation, design, and distribution of the 2013 Wildlife and Natural Resources Survey: Nancy Gagnon; Valoree Gagnon; Robert Holsman, Univ. of WI Stevens Point. Their commitment ensured the highest quality questions and format.

Miigwech to all *Consultants* who participated in the creation, design, and content of the 2013 Survey, Report, and Public Presentations: Janet Marr, Botanist; Joe Dowd, Ojibwa Cultural Knowledge; and Valoree Gagnon, Survey and Report Methods. Their professional experience and expertise contributed to the quality of the Survey, this Report, and Public presentations.

Miigwech to all the *KBIC-NRD Staff* who dedicated their time and knowledge: Erin Johnston, Lake Superior Program Coordinator; Pamela Nankervis, Wildlife Biologist; Evelyn Ravindran, Natural Resources Specialist; and Kyle Seppanen, Wildlife Technician.

Miigwech to Administration for Native Americans (ANA) which provided the funding to design and mail the surveys to KBIC community members; and to the Environmental Protection Agency Great Lakes Management Program for contributing funds towards the printing of the survey.

Miigwech to the *KBIC Tribal Council* who supported the survey effort and provided funds towards prizes for participant incentive drawings.

Miigwech to the *KBIC Natural Resources Committee* who contributed funds towards the purchase of prizes for participant incentive drawings and for reviewing draft questions.

## 1. Introduction

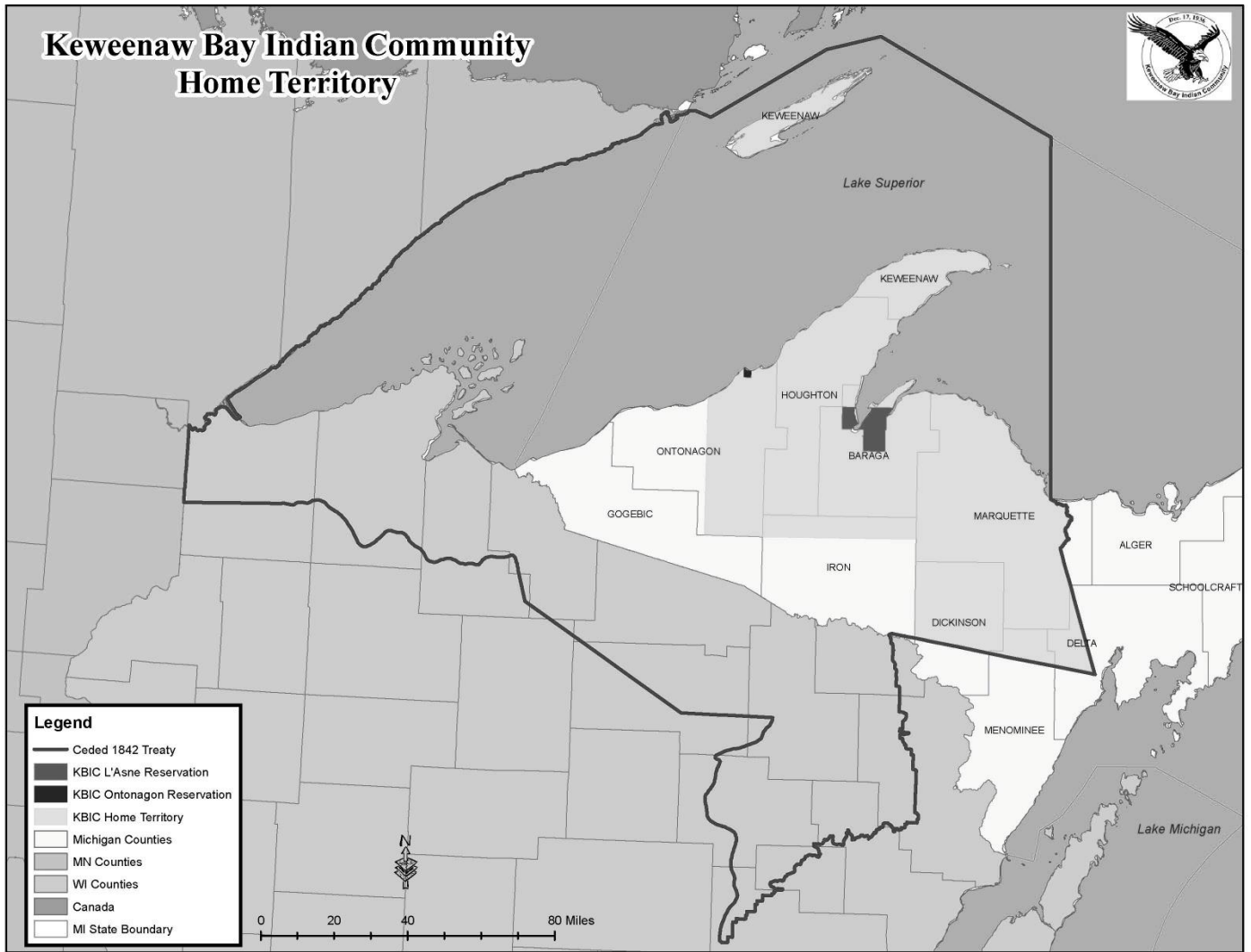
The Keweenaw Bay Indian Community (KBIC) is a Native American community in Baraga County Michigan's Upper Peninsula along the shores of Lake Superior. This federally-recognized tribe is one of many tribes which have centuries of traditional and spiritual connections to the land, to the waters, and to the fish and wildlife (Cain B, Schlender JH, Langseth R, Hillaire D, Donofrio M 2004; GLIFWC 2013; Hindelang 2006; KBIC 2003; Lewis 1995; NWIFC 2010; O'Neill 2007; Wood 2007). Many tribal members today practice subsistence and commercial harvesting as it has been passed through the generations. These Tribal practices are also protected by a land cession treaty between the Chippewa and the federal government, the 1842 Treaty of La Pointe. It remains one of the largest agreements ever made between the United States and an Indian tribe. In granting the U.S. this substantial land area, the bands intentionally reserved specific rights which include rights to fish, hunt, and gather on ceded territories (GLIFWC 2013). The KBIC reside on the L'Anse Reservation, established by the Chippewa Treaty of 1854, which is both the oldest and the largest reservation in the state of Michigan (ITCM 2011).

This Report, entitled the *Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report*, provides a summary of the Survey results of the 2013 Wildlife and Natural Resources' Survey distributed among Tribal members of the KBIC by the KBIC - Natural Resource Department (KBIC-NRD). All KBIC enrolled members are entitled to hunting, fishing and trapping licenses which allows holders to harvest certain wildlife species within the 1842 Treaty of La Pointe ceded territory (on and off reservation) (Figure 1). The Surveys were intended to gain knowledge and understanding of KBIC tribal members' uses, values, and opinions concerning wildlife, natural resources, and environment as well as policies particular to those concerns. Information gained from completed Surveys, compiled in this Report, provides the KBIC Tribal Council and KBIC-NRD with Tribal members' perspectives regarding environmental issues and harvesting activities necessary to constructing management policies and protections for both the land and its people.

Surveys were mailed on February 20, 2013 to 824 Tribal members. The response deadline was March 22, 2013 and a total of 264 (32%) were completed and returned to the KBIC-NRD. A KBIC Hunter Survey that had some similar questions but was mostly focused on wildlife harvest was conducted in previous years (1991, 1992, 1995, 1998, 2001, 2005, and 2009), with reports following each Survey. The primary objective of the 2013 Survey is to apply its results in Tribal Council governance as well as the responsibilities of KBIC-NRD to ensure policies, programs, and projects reflect cultural significance and relevance to the Community whose health and well-being are directly connected to wildlife, natural resources, and environment in Keweenaw Bay.

This survey was designed to assist with identifying values regarding wildlife and natural resources to be considered during the development of a Tribal Wildlife Management Plan currently being drafted. Funds for conducting this survey were provided through Administration of Native Americans, Great Lakes Restoration Initiative (Lakewide Management Program), KBIC Tribal Council, and KBIC Natural Resources Committee.

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**Figure 1.1 1842 Treaty of La Pointe ceded territory area and KBIC Reservation lands and Home Territory in the Upper Peninsula of Michigan.**



## 2. Methods

### 2.1. Survey Questionnaire

The 2013 KBIC Wildlife and Natural Resources Survey was somewhat similar to previous Hunter Surveys, covering a wide range of wildlife management aspects, but was also intended to be more comprehensive than previous surveys. The Survey included a map insert of KBIC Home Territory (See Figure 1). A primary focus of the Survey was wildlife management, with questions pertaining to deer, bear, small game, waterfowl and furbearer harvest, as well as KBIC wildlife harvest regulations, rare and/or sensitive species observations, and general environmental and wildlife management concerns of KBIC Tribal members.

Specific topics addressed in the survey and this Report include:

- *Use and reliance of various natural resources,*
- *Values and management options for specific wildlife species,*
- *Culture and Ojibwa-based values and opinions about KBIC Natural Resource Policies*

Secondary focuses included demographic information as well as perspectives and opinions about outside governance policies and relations (Great Lakes Indian and Wildlife Commission, State, and Federal Government) that directly affect KBIC wildlife, environment, natural resources, and people. All questions were proposed using a five-level Likert scale for respondents to select responses:

1. Strongly disagree
2. Disagree
3. No opinion (the neutral option)
4. Agree
5. Strongly agree

The Likert scale is used to measure positive, negative, and neutral responses to Survey questions and statements although sometimes, the neutral response may infer an “undecided”. For summary purposes, results were reduced into 3 categories by combining the two Agree options and Disagree options. See Appendices B, D, and F for full five-level Likert scale results. Finally, general comments were encouraged after each of the three main topics' sections listed above; several respondents included a wide array of comments with their Survey submissions. See Appendices C, E, and G for a complete list of respondents' comments.

### 2.2. Prize Drawings

As an incentive to encourage responses, prizes were available to participants by enclosing an optional drawing ticket with each Survey. Participation prizes were drawn and awarded on April 15, 2013. Prize tickets became valid for drawings when a completed Survey was returned to the KBIC-NRD. The list of prizes was as follows:

- Crossbow
- 0.22 caliber firearm
- \$100 gift certificate to *Mitch's Trading Post*
- 2 gift certificates from *Equus Borealis* for a 1 hour foot massage, and
- 12 *Pines* gift cards worth \$50 each

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Returned Surveys and completed raffle tickets were reviewed by KBIC-NRD staff and information was entered into a Microsoft Excel data file. Winners of prize drawings were selected at random by the KBIC-NRD. Funds for the prizes were provided by the KBIC Tribal Council (\$600) as well as the KBIC Natural Resources Committee (\$600).

### **2.3. Data Entry and Compilation**

Information from completed Surveys was entered into an Excel spreadsheet Database by KBIC-NRD staff from March 1, 2013 to April 12, 2013. To calculate the results of the Excel Database information and generate a report of all its results, a consultant's services was obtained through official contract and approved by the Tribal Council on May 23, 2013. Services rendered included Database calculation from June 6, 2013 to June 30, 2013 as well as compiling the KBIC Wildlife and Natural Resources' Survey Report (this Report) from July 2, 2013 to August 4, 2013. The Report was then reviewed and edited over the next three months by KBIC-NRD staff and the consultant; and the final Report was completed on November 17, 2013.

### 3. Results and Discussion

In this section, the results of the Wildlife and Natural Resources Survey's respondents and their responses are outlined in four primary parts: *Demographics*; *Natural Resources' Use and Reliance*; *Wildlife Species' Values and Management*; and *Ojibwa-based Values, Knowledge, and KBIC Policies*. Each results section includes a graphic depiction of results that depict combined 'Agree' options, combined 'Disagree' options, and the 'no opinion' option. (See Appendices B, D, and F for full five-level Likert scale response results.) Concluding each of the primary sections is a summary of comments by KBIC respondents. (See Appendices C, E, and G for a complete list of respondents' comments.) These comment sections are of particular interest as they point to concerns and insights that were not specifically asked for in the Survey.

#### 3.1. Demographics

Tribal members were asked various questions regarding their demographics. Of the total 264 respondents fifty-one percent (51%) reported male; forty-nine percent (49%) reported female. Thirty-nine percent (39%) reported they were married, 60% reported non-married, and one percent (1%) did not report on marital status. Ninety-six percent (96%) reported they reside in Baraga County, four percent (4%) reported their residence in Marquette County. Ninety-eight percent (98%) reported themselves as registered tribal members, one percent (1%) reported not registered as a tribal member; and one-percent (1%) did not respond to registration status. Ninety-six (96%) reported residing on the Reservation, three percent (3%) reported residing off the Reservation, and one percent (1%) did not report a response.

Tribal members were asked to report their age by circling one of seven different age groups: *18-24*, *25-31*, *32-40*, *41-50*, *51-60*, *61-70*, or *71+*. Table 3.1 shows the age groups reported by Survey respondents.

Tribal members were asked to identify themselves as one of each of the following categories: *hunter* or *non-hunter*; *fisher* or *non-fisher*; and *gatherer* or *non-gatherer*. Table 3.2 shows the self-identification by Survey respondents.

Tribal members were asked to report their highest level of formal education based on the following six categories: *no High School degree*; *High School or GED*; *some College*; *Bachelor's degree*; *Master's degree*; and *PhD*. Table 3.3 shows the formal education reported by Survey respondents. (No *PhD* was reported.) One percent (1%) did not respond to formal education level.

Tribal members were asked to report the number of children in their immediate family by circling one of following six options: *zero*, *one*, *two*, *three*, *four*, and *more than four*. Table 3.4 shows the number of

**Table 3.1**  
Age groups of KBIC Survey respondents.

Age groups	Response
<b>18-24</b>	8%
<b>25-31</b>	9%
<b>32-40</b>	12%
<b>41-50</b>	19%
<b>51-60</b>	25%
<b>61-70</b>	18%
<b>71+</b>	8%

**Table 3.2**  
Harvester self-identification of KBIC Survey respondents.

<b><i>Hunter</i></b>	67%
<b><i>Non-hunter</i></b>	33%
<b><i>Fisher</i></b>	75%
<b><i>Non-fisher</i></b>	24%
<b><i>Gatherer</i></b>	67%
<b><i>Non-gatherer</i></b>	33%

children per respondent reported. Two, zero, and one child were the most common answers, respectively.

### 3.2. Natural Resources' Use and Reliance

In the *Natural Resources' Use and Reliance* section of the Survey, a series of statements were posed to respondents about their use and reliance of various natural resources. The following results are divided into two sections of use and reliance concerning specific natural resources: subsistence and sports/recreation. (See Appendix B for numeric five-level Likert response Tables)

#### 3.2.1. Subsistence Natural Resources

Respondents were asked to consider the statement, *The following natural resources are necessary for my own subsistence ("in support of a food source and/or livelihood")* concerning various natural resources and harvesting activities. By looking at combined percentages of agree and strongly agree, respondents appear to value the following resources for **subsistence** in order of importance as: Lake Superior fish, white-tailed deer, wild berries, trees, inland fish, spearing, wild rice, netting, wild plants, game birds, wild turkey, rabbits, furbearers, waterfowl, and bear (Figure 3.1). (See Appendix B [B-1] for numeric five-level Likert response results Table)

#### 3.2.2. Sports/Recreation Natural Resources

Respondents were asked to consider the statement, *The following activities serve as important sport/recreation for me personally* concerning various natural resources and activities. Looking at combined percentages of agree and strongly agree, respondents appear to value the following **consumptive** resources for **recreation** in order of importance as: fishing rod & reel (82%), harvest berries (77%), harvest trees/wood products, hunt white-tailed deer (72%), ice fishing (65%), spear fishing (64%), hunting game birds (62%), hunting wild turkey (54%), harvest wild plants (52%), harvest wild rice (51%), hunting rabbits (45%), hunting waterfowl (39%), trapping furbearers (33%), and hunting bear (26%) (Figure 3.2).

It appears that most respondents that gather, hunt, trap and fish for recreation also use the resource as food or subsistence as determined by combined agree and strongly agree percentages. Most categories when compared between subsistence and recreation were within a few percentage points. Those with ten or more percentage point differences were for harvesting wild rice (23%), hunting white-tailed deer (12%), trapping fur bearer species (11%), and spear fishing (10%) which appear to be valued more for subsistence than for sport. More respondents (23%) considered harvesting wild rice for subsistence rather than as a recreation probably because of the large amount of time and energy required to collect, process, and package wild rice. We were unable to compare subsistence versus recreation values for inland lake fish, Lake Superior fish, rod/reel, ice fishing or netting due to different questions posed.

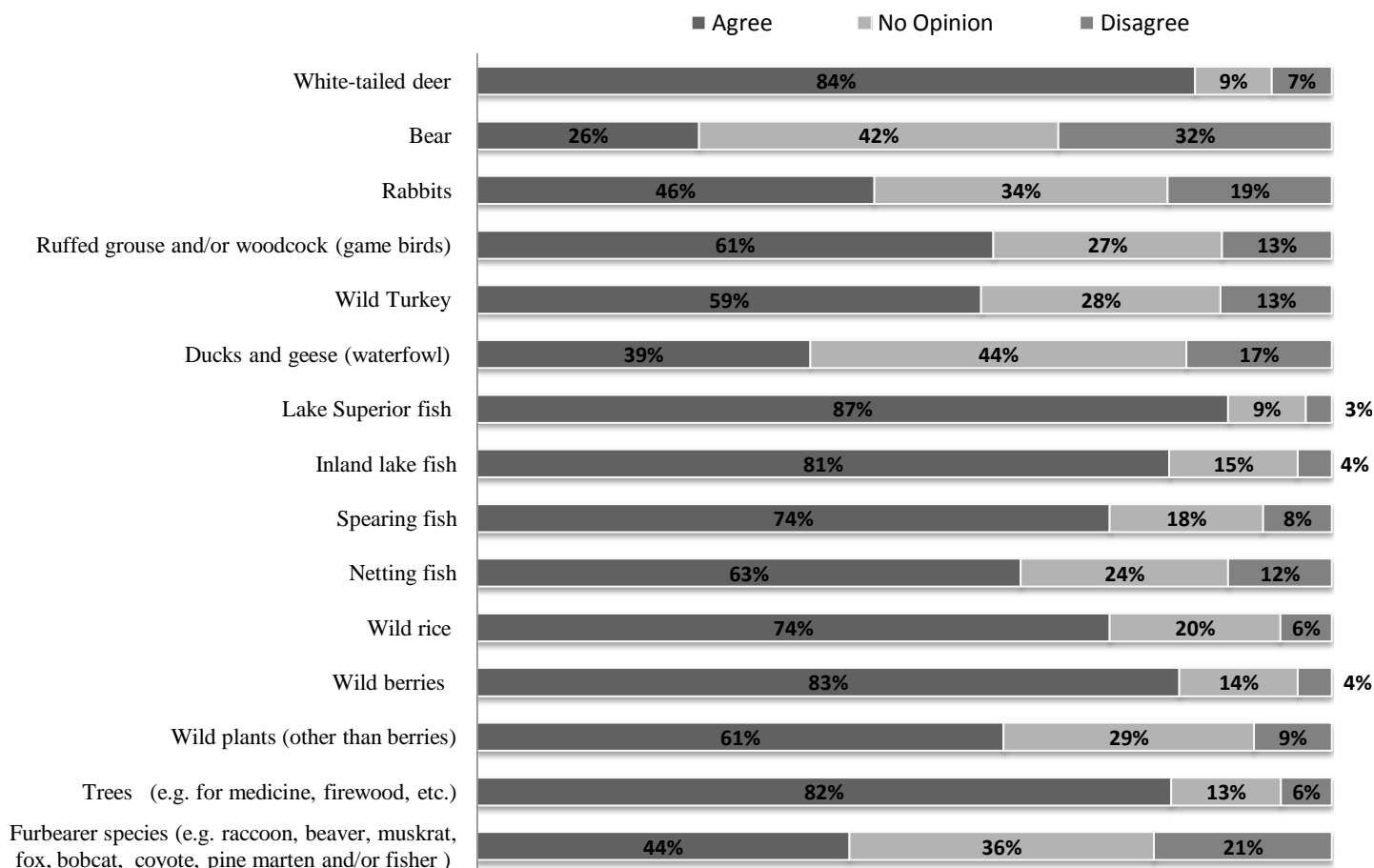
**Table 3.3**  
Highest level of education reported  
by KBIC Survey respondents.

<i>No High School degree</i>	8%
<i>High School or GED</i>	30%
<i>Some College</i>	48%
<i>Bachelor's degree</i>	9%
<i>Master's degree</i>	3%

**Table 3.4**  
Number of children in immediate  
family reported by KBIC Survey  
respondents.

<i>Zero</i>	20%
<i>One</i>	16%
<i>Two</i>	23%
<i>Three</i>	15%
<i>Four</i>	11%
<i>More than four</i>	14%

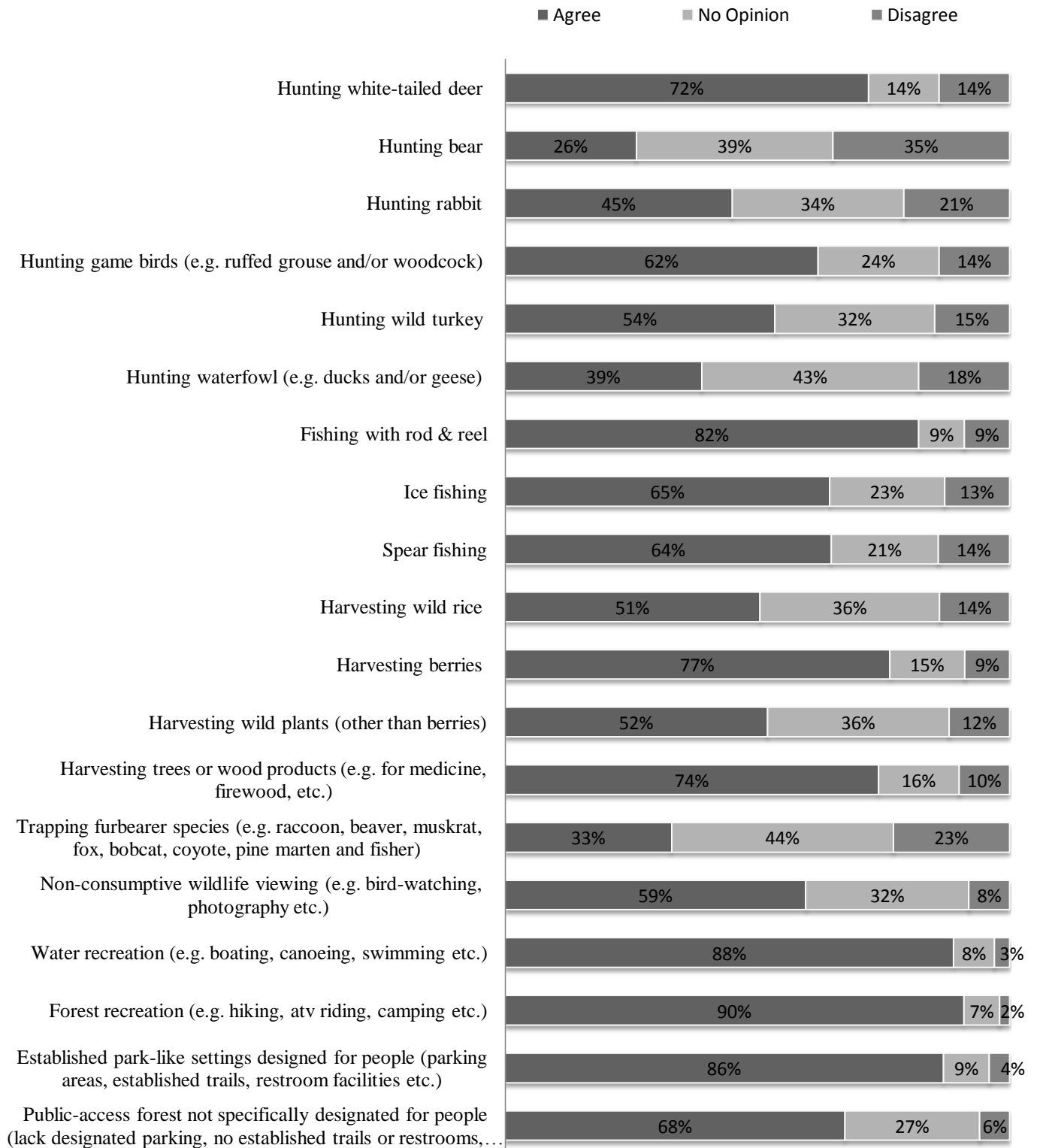
## Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report



**Figure 3.1 KBIC natural resources and harvesting activities necessary for *subsistence* (in support of a food source and/or livelihood).**

Respondents that collectively agreed or strongly agreed ranged from 90% to 68% that they value ***non-consumptive*** outdoor recreation with order of importance being: forest recreation (90%), water recreation (90%), visiting park-like settings (86%), accessing public forest (68%) and non-consumptive wildlife viewing (59%), respectively. KBIC-NRD will continue to work with other departments such as KBIC Public Works and KBIC Realty to ensure that land use and management accommodates ample public use of natural areas and resources for recreational purposes. (See Appendix B [B-2] for numeric five-level Likert response results Table.)

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**Figure 3.2 KBIC natural resources and activities important for sports and/or recreation.**

### 3.2.3. KBIC Survey Respondents' Comments

For *Natural Resources' Use and Reliance*, KBIC Survey respondents' comments were organized into four main topics. Included within each topic are common themes of priority interest and concern to Council governance and KBIC-NRD management and policies.

1. Hunting, fishing, and gathering, practices and policies: These comments include respondents' concerns across all harvesting types; some are species specific. Concerns range from the beliefs and behaviors of management and policy entities to the harvesting beliefs and behaviors of the Community as a whole.
2. Pollution: These comments concern pollution and policies specific to recreation, forests, youth, and mining.
3. Public access: These comments include respondents' concerns about public access or no-access, tribal and non-tribal, across varying landscape and waterscape environments for the purpose of harvesting and recreational activities in numerous places on the Reservation as well as within the 1842 ceded territory. Of particular interest are the comments that address the lack of accessibility for the handicapped and the elders; this lack of access includes access to recreational and harvesting activities as well as to public restrooms.
4. For subsistence only: These comments focus on one common theme—distinguishing themselves as subsistence harvesters only, clearly stating their beliefs that hunting, fishing, and gathering is not for sport and/or recreational purposes.

A complete list of respondent comments on *Natural Resources' Use and Reliance* can be found in Appendix C.

### 3.3. Wildlife Species' Values and Management

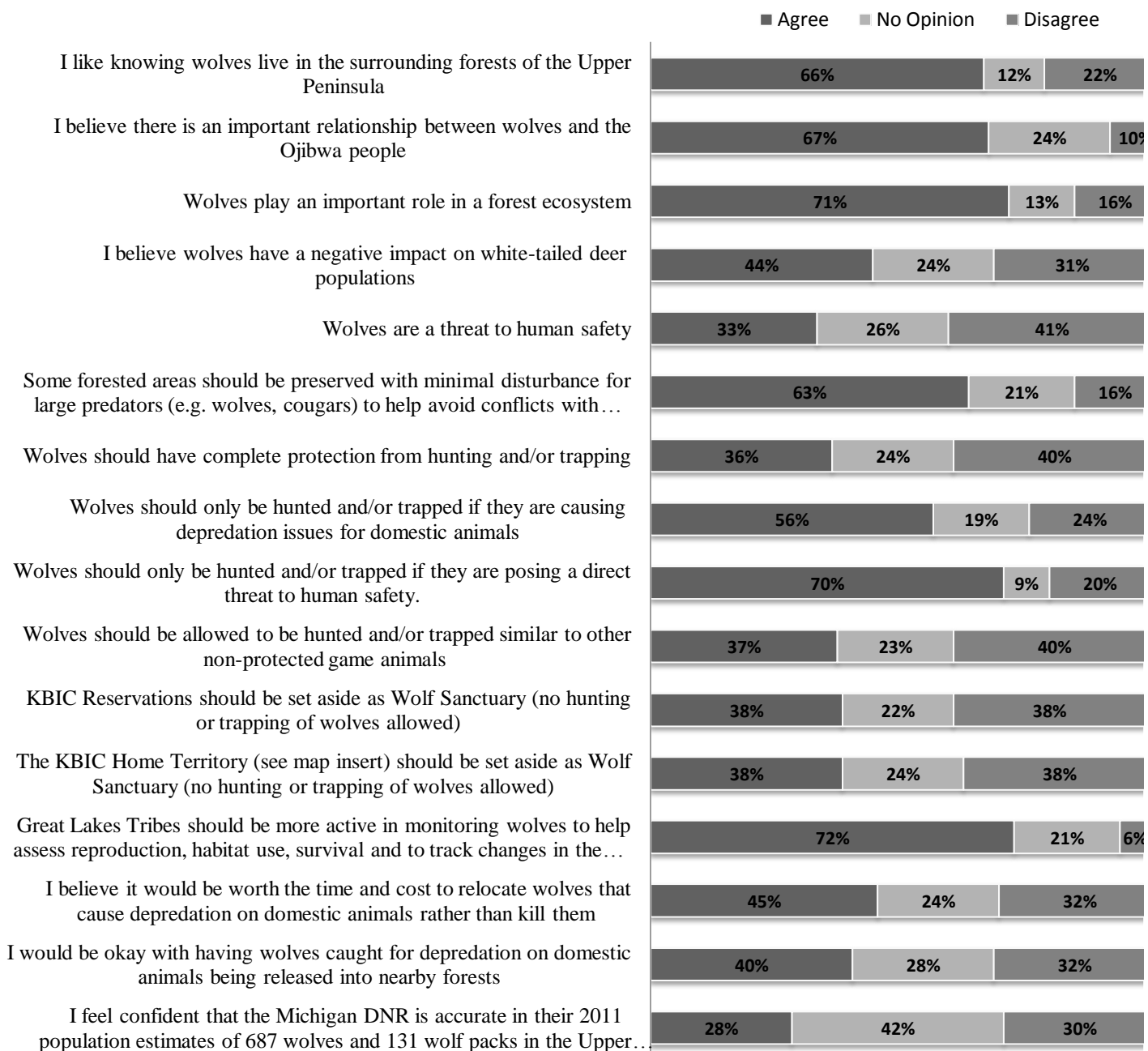
In the *Wildlife Species' Values and Management* section of the Survey, a series of statements were posed to respondents about their knowledge and opinions concerning values and management of specific wildlife species. The following results are organized in eleven sections of values and management concerning specific species: wolves, moose, black bear, turkey, white-tailed deer, cougar, lynx and bobcat, bats, pine marten and fisher, fish, and other species. A brief summary of respondent comments concludes this section.

This section asks questions about values and management options for SPECIFIC WILDLIFE SPECIES in the Keweenaw Bay region. Each species section asked a series of questions particular to specific wildlife species outlined here. Figures 3.3-3.13 shows the results in a graphic compilation of their responses (See Appendix D for numeric five-level Likert response Tables associated with each species-specific section.)

#### 3.3.1. Ma'iinganag (Wolves)

This sub-section contained sixteen statements about the values, beliefs, and management options associated with *Ma'iinganag* (Wolves). It also asked respondents to consider tribal management and policies at local and regional levels as well as at state levels. Results are shown in Figure 3.3.

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**Figure 3.3 KBIC values and management of *Ma'iinganag* (Wolves).**

As determined by combined agree and strongly agree percentages, it appears that most respondents like knowing that wolves exist in the U.P. (66%) and believe there is a strong relationship between the wolf and Anishinaabe (66%). Respondents also appear to understand the importance of wolves in the ecosystem (71%), feel that some forested areas should be preserved with minimal disturbance (63%) to help avoid conflicts with humans, and believe that KBIC should continue to monitor the wolf population (72%). Contrary to these opinions that could be interpreted as positive towards the wolf, 45% believe that wolves have a negative impact on white-tailed deer populations, 37% believe that wolves should be hunted for sport like other game animals, and 33% feel wolves pose a threat to human safety. As for providing wolf sanctuary, 40% believe the KBIC

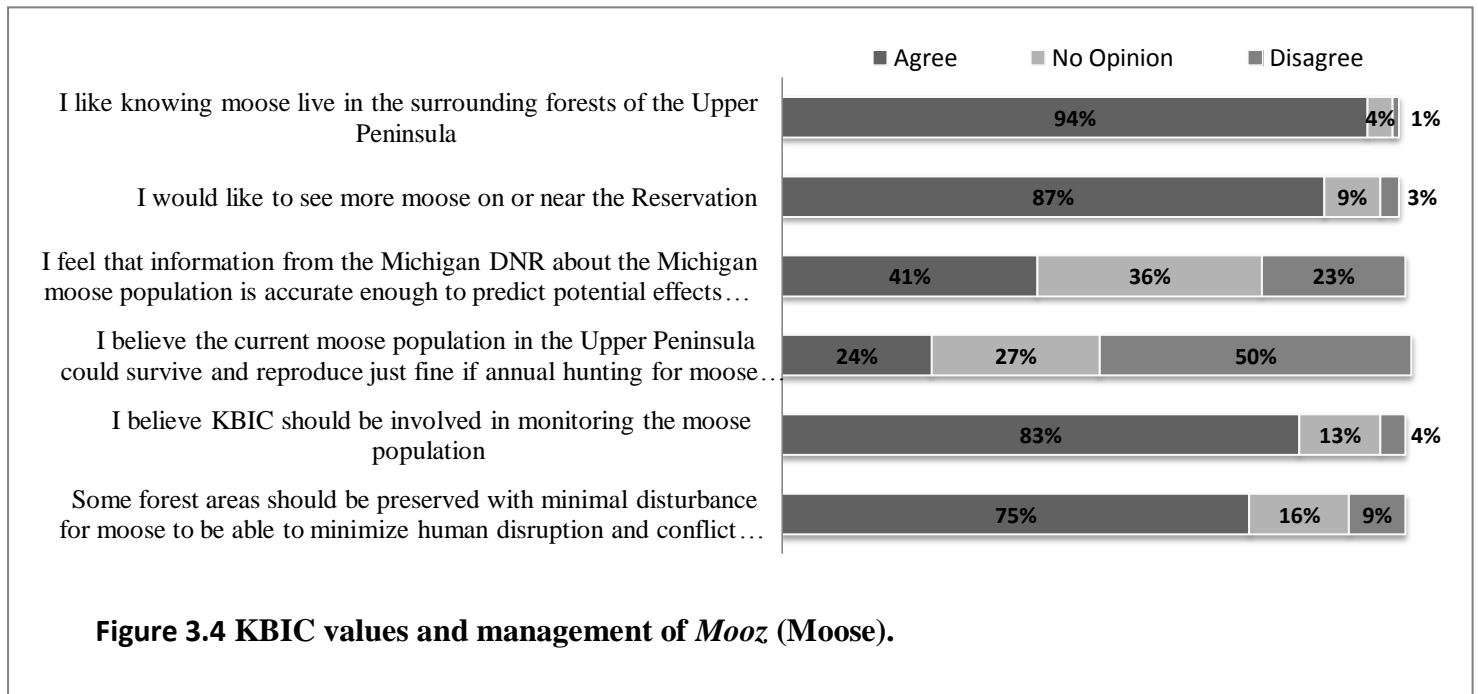


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Reservation should be managed as wolf sanctuary (no hunting) and 38% believe the larger home territory should be maintained as a no hunting sanctuary for wolves. A total 36% of respondents indicated that wolves should be offered complete protection, whereas 56% believe wolves should only be hunted if causing depredation on domestic animals which has already been lawful in Michigan since 2008. Regardless of their opinion of wolves, 72% of respondents feel that the Great Lakes Tribes should be more active in monitoring ma'iingan. (See Appendix D [D-1] for numeric five-level Likert response results Table.)

### 3.3.2. *Mooz* (Moose)

This sub-section contained six statements about the values, beliefs, and management options associated with *Mooz* (Moose). It also asked respondents to consider tribal management and policies at local and regional levels as well as at state levels. Results are shown in Figure 3.4.

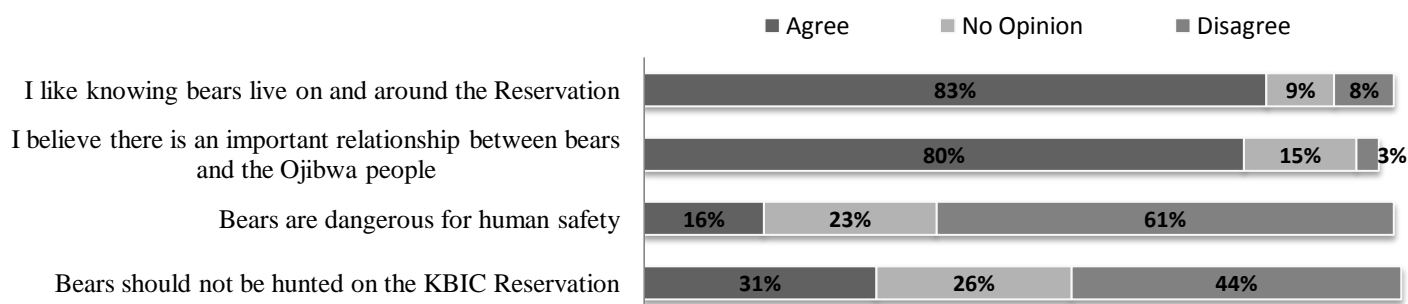


Respondent's values towards moose appear to be supportive of more monitoring and preservation of the population. Most respondents indicated they like having moose in the area (95%) and would like to see more of them (87%). Only 24% of respondents believe the current population could sustain harvest through an established hunting season. Forty-one percent of respondents feel population estimates and information about the current moose population is accurate. Eighty-three percent of respondents feel KBIC-NRD should be more involved in monitoring the moose population. (See Appendix D [D-2] for numeric five-level Likert response results Table.)

### 3.3.3. *Muckade makwa* (Black Bear)

This sub-section contained four statements about the values, beliefs, and management options associated with *Muckade makwa* (Black Bear). It also asked respondents to consider tribal management and policies. Results are shown in Figure 3.5.

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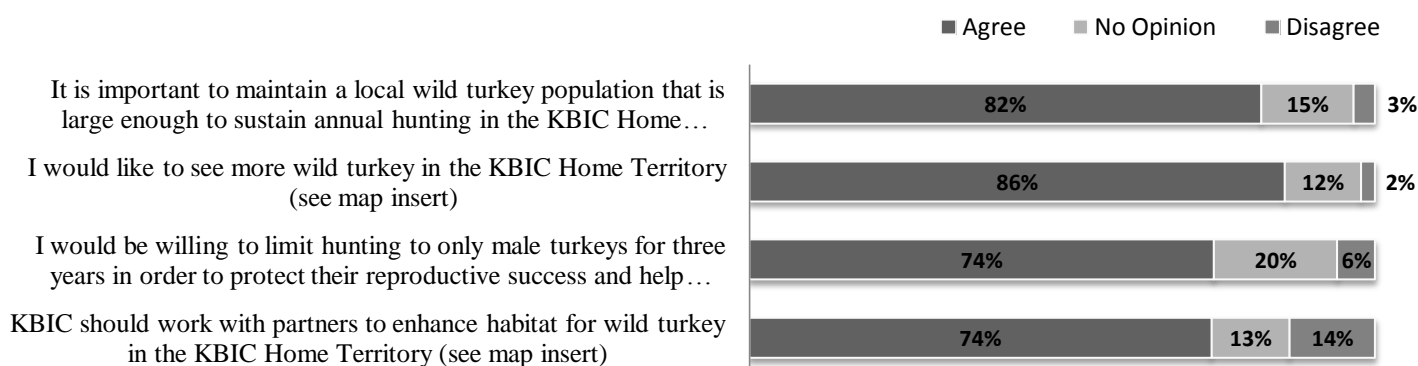


**Figure 3.5 KBIC values and management of *makade makwa* (Black Bear).**

A majority of respondents like knowing there are local black bears living on and near the reservation (83%) and 80% believe there is a special relationship between *makade makwa* and Anishinaabe. Only 16% feel bears are dangerous for human safety while it is split about how people feel about hunting bears within the reservation boundary; 31% feel that no bears should be hunted within the Reservation boundary compared to 44% who feel they should be allowed to be hunted on the Reservation. Many KBIC members are of the Bear Clan which most likely contributes to the stance to protect the local black bear from being hunted. (See Appendix D [D-3] for numeric five-level Likert response results Table.)

### 3.3.4. *Mizise* (Turkey)

This sub-section contained four statements about the values, beliefs, and management options associated with wild *Mizise* (Turkey). It also asked respondents to consider tribal management and policies at local and regional levels. Results are shown in Figure 3.6.

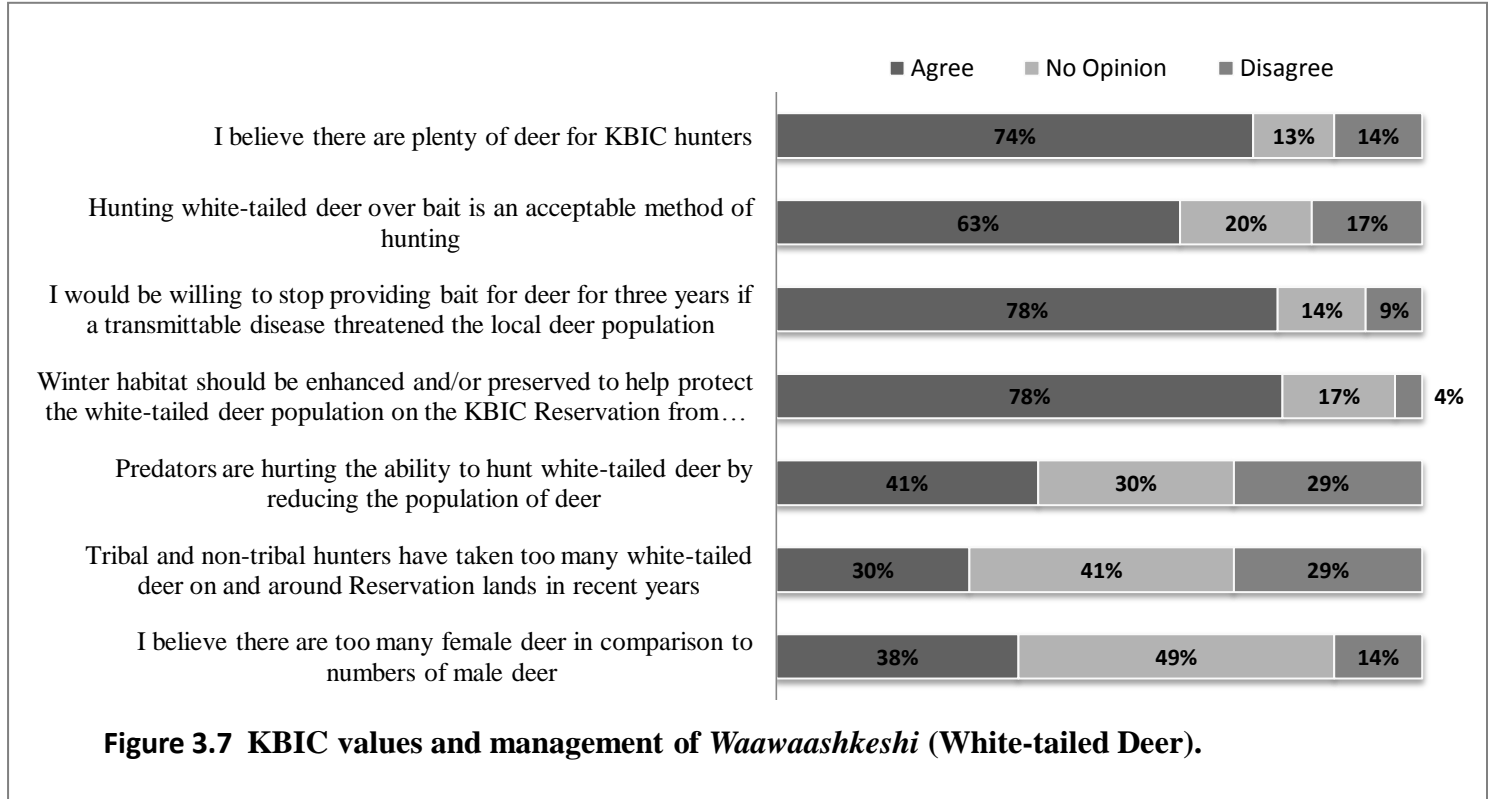


**Figure 3.6 KBIC values and management of *Mizise* (Turkey)**

It appears that the community would like to see KBIC participate in more active management of wild turkeys. Eighty-two percent feel it is important to maintain wild turkey as a huntable population and 86% would like to see more wild turkeys. Respondents (74%) indicated that they would be willing to limit hunting to only male turkeys for a limited period of time up to three years to help increase numbers of wild turkey. Respondents were also supportive (83%) in having KBIC-NRD work with partners to improve habitat for wild turkeys. (See Appendix D [D-4] for numeric five-level Likert response results Table.)

### 3.3.5. *Waawaashkeshi* (White-tailed Deer)

This sub-section contained seven statements about the values, beliefs, and management options associated with *Waawaashkeshi* (White-tailed Deer). It also asked respondents to consider tribal management and policies at local levels. Results are shown in Figure 3.7.

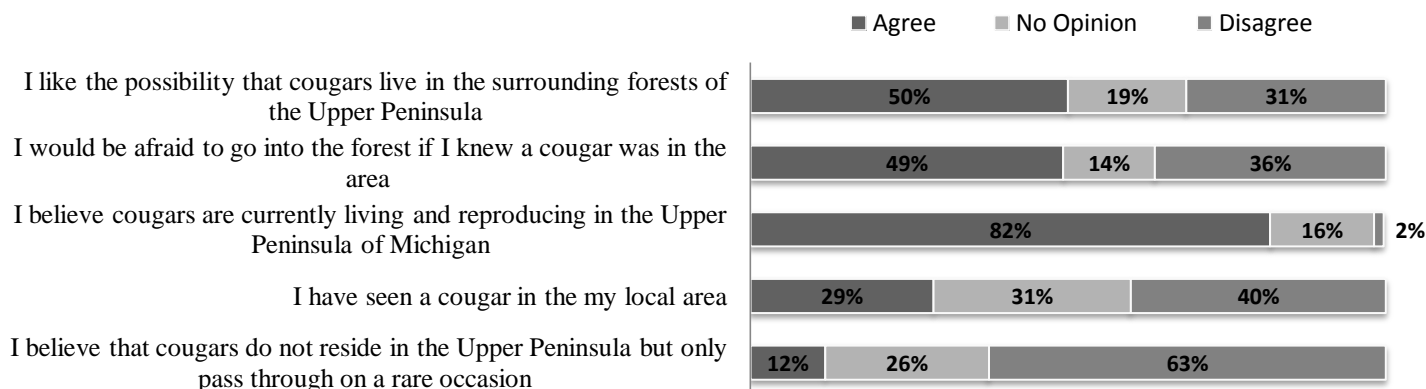


Respondents (74%) believe there are plenty of deer available for hunters. They also appear willing to protect the health of the local deer; 78% agreed they would be willing to stop baiting deer if a transmissible disease threatened the population and 78% also agree that winter habitat should be enhanced or preserved to help prevent winter mortality. Forty-one percent (41%) of respondents believe that predators are reducing the deer population and 30% feel human hunters have taken too many deer in recent years. Thirty-eight percent (38%) of respondents are concerned about an uneven sex ratio. (See Appendix D [D-5] for numeric five-level Likert response results Table.)

### 3.3.6. *Muwin* (Cougar)

This sub-section contained five statements about the values and beliefs associated with *Muwin* (Cougar). Results are shown in Figure 3.8. Half of the respondents (50%) like the possibility of cougars living in the surrounding forests but 49% reported that they would be afraid to go into the forest if they knew one was in the area. The State of Michigan has been slow to acknowledge the presence of cougar in the U.P., most respondents (81%) however do believe that cougars are living and reproducing in the U.P.. Only 12% of respondents feel that cougars simply pass through on a rare occasion but don't actually reside here. (See Appendix D [D-6] for numeric five-level Likert response results Table.)

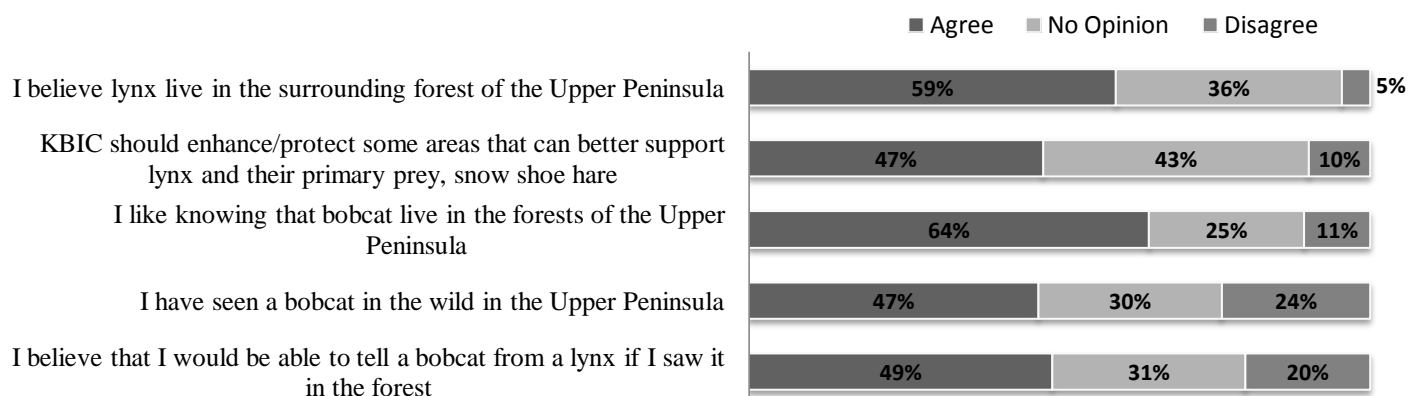
## Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report



**Figure 3.8 Values and management of *Muwin* (Cougar)**

### 3.3.7. *Bizhiw and Gidagaa-bizhiw* (Lynx and Bobcat)

This sub-section contained five statements about the values, beliefs, and management options associated with *Bizhiw and Gidagaa-bizhiw* (Lynx and Bobcat). It also asked respondents to consider tribal management and policies at local and regional levels. Results are shown in Figure 3.9.



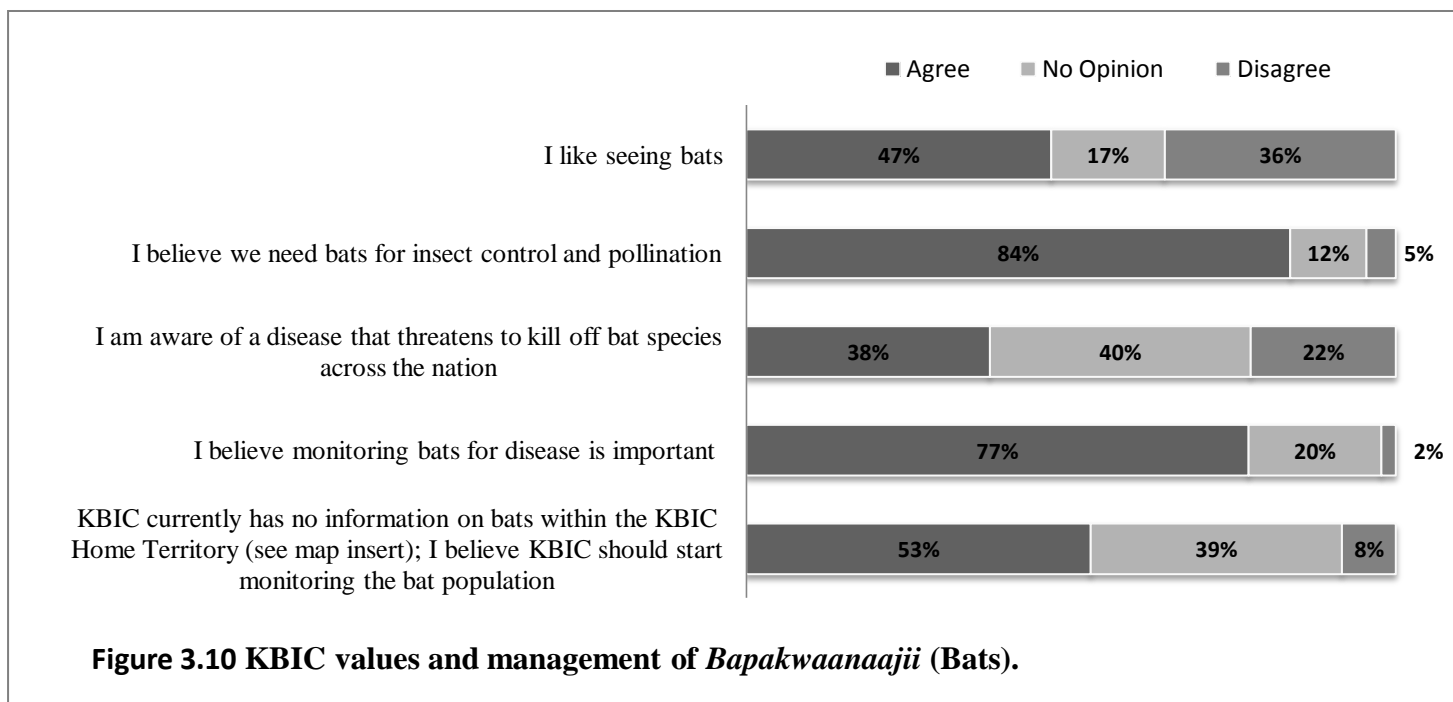
**Figure 3.9 KBIC values and management of *Bizhiw and Gidagaa-bizhiw* (Lynx and Bobcat).**

Many respondents (59%) believe that lynx live in the surrounding forest of the U.P. although the last two verified records of lynx in Michigan were in 1966 and 1983 (McKelvey et al. 2000). Forty-nine percent (49%) feel confident they would be able to discern a bobcat from a lynx if seen in the forest. Forty-eight percent (48%) of respondents feel that KBIC should enhance/protect areas for snow shoe hare to maintain enough primary prey for lynx and other predators. Many respondents (64%) like knowing that bobcat live in the U.P. with 46% reporting to have seen a bobcat in the wild. (See Appendix D [D-7] for numeric five-level Likert response results Table.)

### 3.3.8. *Bapakwaanaajii* (Bats)

This sub-section contained five statements about the values, beliefs, and management options associated with *Bapakwaanaajii* (Bats). It also asked respondents to consider tribal management at local and regional levels. Results are shown in Figure 3.10.

## Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report

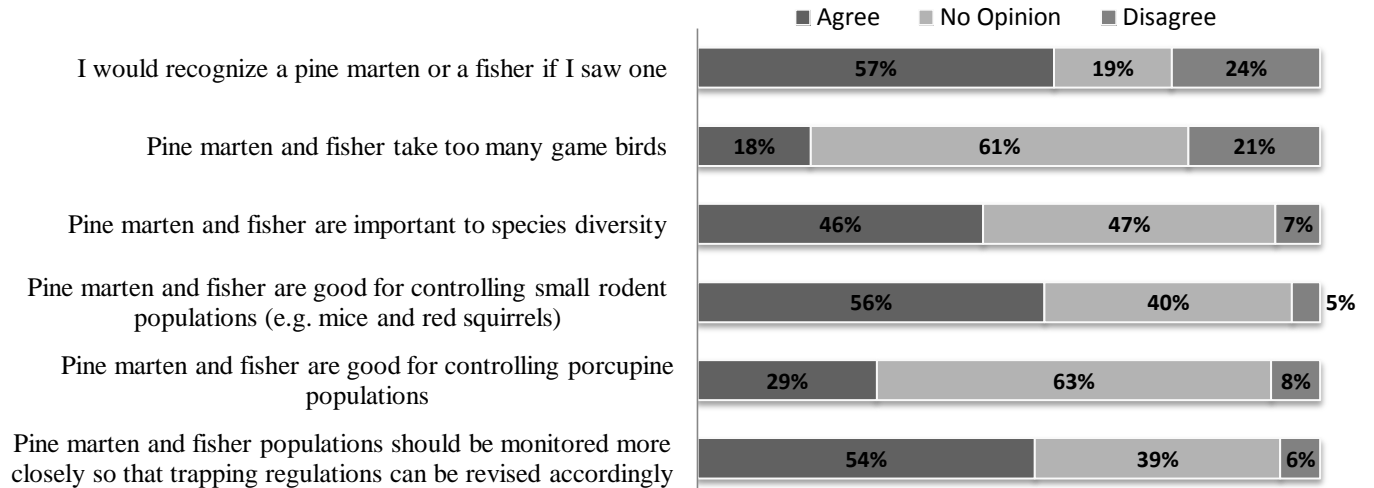


A majority of respondents are aware of the importance of bats for insect control (84%) and 77% feel it is important to monitor bats for diseases. The interest in disease monitoring may be partially referring to rabies or other transmissible diseases since only 37% of respondents were aware that there is a disease problem (white-nosed syndrome) killing bats and spreading across the U.S. (Blehert et al. 2009). Over half the respondents (53%) feel that KBIC should monitor the local bat population. (See Appendix D [D-8] for numeric five-level Likert response results Table.)

### 3.3.9. *Waabizheshi* and *Ojiig* (Pine Marten and Fisher)

This sub-section contained six statements about the values, beliefs, and management options associated with *Waabizheshi* and *Ojiig* (Pine Marten and Fisher). It also asked respondents to consider tribal management and policies at local and regional levels. Results are shown in Figure 3.11. Although people are aware that pine marten and fisher exist, it appears that Community members are not familiar with their ecology as there were high percentages of “No Opinion” for all of the questions posed about pine marten and fisher. Fifty-seven percent (57%) of respondents feel they would recognize the difference between a pine marten or a fisher. Fifty-six percent (56%) believe that both species are good for controlling rodent populations but only 29% seemed aware that fisher eat porcupines as a main source of prey. Fifty-four percent (54%) of respondents feel that both species should be monitored more closely to adjust trapping regulations and avoid over trapping. KBIC-NRD will continue to educate people on the history, the reintroduction efforts, and the ecology of pine marten and fisher. (See Appendix D [D-9] for numeric five-level Likert response results Table.)

## Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report



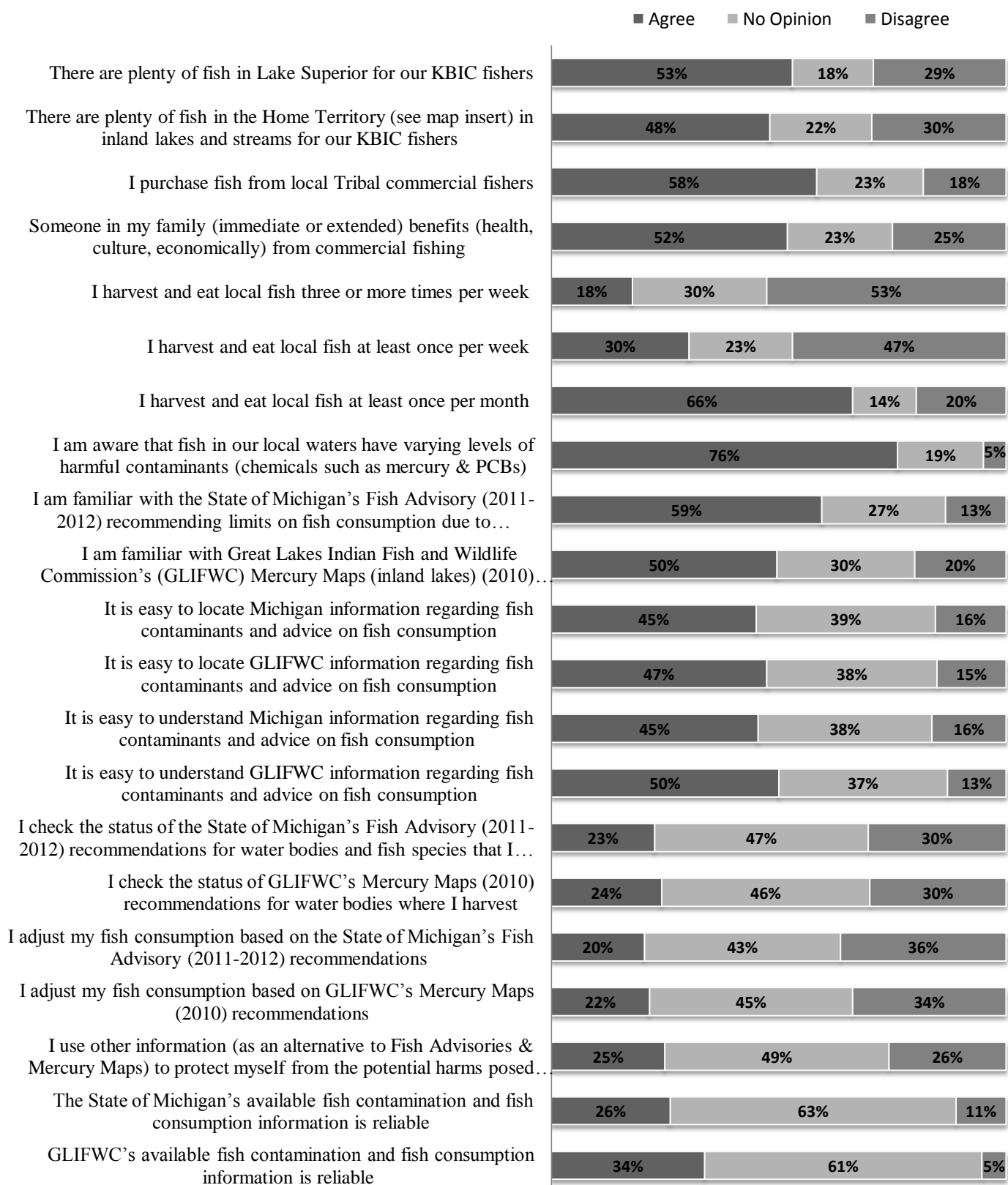
**Figure 3.11 KBIC values and management of Waabizheshi and Ojiig (Pine Marten and Fisher).**

### 3.3.10. Gigoonh (Fish)

This sub-section contained twenty-one statements about the values, beliefs, and management options associated with *Gigoonh* (Fish). It also asked respondents to consider tribal management and policies. Results are displayed together with the top set of results focusing on values and management of the tribal fish harvest and fish consumption, while the subsequent set of results focusing on fish contaminants and fish consumption advisories (comparing tribal uses of advisories produced by GLIFWC and the State of Michigan). Results are shown in Figure 3.12.

KBIC is known as a subsistence fishing Tribe (Gagnon 2011; GLIFWC 2013). Many respondents (59%) purchase fish from local Tribal fishermen and 52% agree that someone in their family benefits from commercial fishing. Many respondents report eating local fish at least once per month (66%), 31% report eating it once per week, and 18% report eating local fish three or more times per week. There appears to be a lack of understanding or utilizing fish contaminant advisories and reports; this is apparent by the high percentage of “no opinion” responses to questions about awareness, locating, and understanding contaminant information from Great Lakes Indian Fish and Wildlife Commission (GLIFWC) or the State of Michigan (the State). Despite that 76% of respondents are aware that fish in the local waters have contaminants and nearly half of respondents agree that it is easy to find contaminant information (47% for GLIFWC, 45% the State), respondents also report that few people adjust their fish consumption based on advisory recommendations from either GLIFWC (22%) or the State (20%). Thirty-four percent (34%) and thirty-six percent (36%) admit to *not* adjusting consumption based on GLIFWC and the State recommendations, respectively. As for opinions about available fish populations, 53% agree that there are plenty of fish in Lake Superior (30% disagree). Forty-eight percent agree there are plenty of fish from inland lakes or streams within the Home Territory, while 29% disagree. (See Appendix D [D-10] for numeric five-level Likert response results Table.)

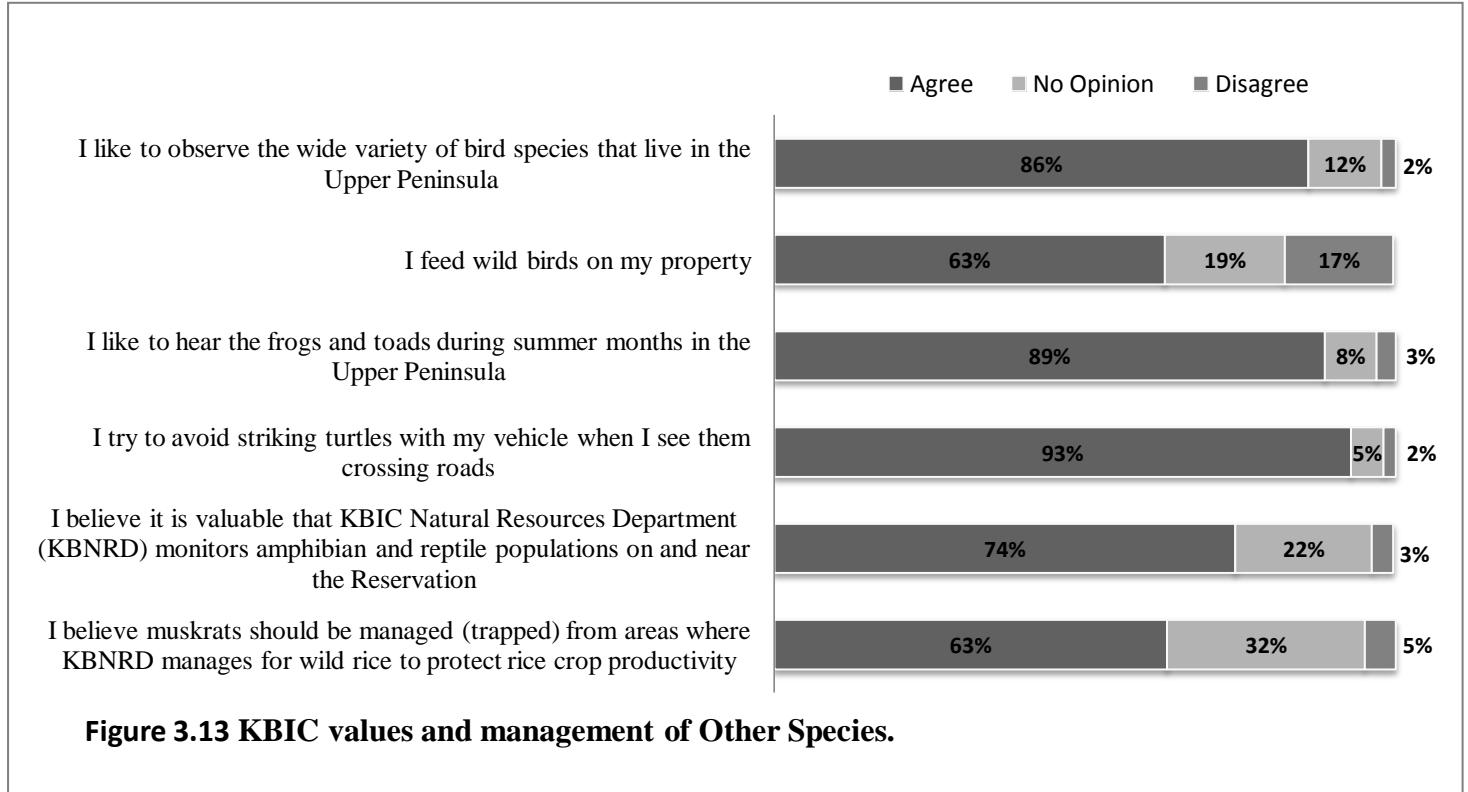
## Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report



**Figure 3.12 KBIC values and management of *Gigoonh* (Fish).**

### 3.3.11. Other Species

This sub-section contained six statements about the values, beliefs, and management options associated with Other Species of interest and concern. It also asked respondents to consider tribal management and policies. Results are shown in Figure 3.13.



It appears that respondents have an appreciation of birds with 86% agreeing that they like to observe the wide variety of bird species in the U.P. Sixty-three percent (63%) of respondents feed wild birds on their property. A majority of respondents (89%) like to hear frogs and toads and 74% feel it is valuable that KBIC-NRD monitors amphibian and reptile populations. It also appears that many (63%) would support the trapping of muskrats to protect wild rice crops in local waters. (See Appendix D [D-11] for numeric five-level Likert response results Table.)

### 3.3.12. KBIC Survey Respondents' Comments

For *Wildlife Species' Values and Management*, KBIC Survey respondents' comments were organized into four main topics. Included within each topic are common themes of priority interest and concern to Council governance and KBIC-NRD management and policies.

1. Wolves: These comments include respondents' specific concerns and opinions about wolves and the wolf population.
2. Fish, fishing, and fish consumption: These comments focus on particular concerns about the tribal fish harvest such as population, fishing sites and policies, as well as concerns about fish consumption, contamination, and advisory information.
3. All, other, and/or additional species: These comments include respondents' opinions concerning hunting safety, harvesting policies and practices, as well as information about a variety of specific species.



4. "No opinion": These comments address the reasons for frequently choosing the "no opinion" option on the Survey.

A complete list of respondent comments on *Wildlife Species' Values and Management* can be found in Appendix E.

### **3.4. Ojibwa-based Values, Knowledge, and KBIC Policies**

In the *Ojibwa-based Values, Knowledge, and KBIC Policies* section of the Survey, a series of statements were posed to respondents based on cultural values and traditional knowledge as well as current KBIC policies reflecting Ojibwa-based values in governance and management. The following results are divided into six sections concerning the following: Ojibwa Language and Traditions; KBIC Natural Resources Department and Hatchery Importance; KBIC Hunting, Fishing and Gathering Tribal Code of Law: Title Ten; KBIC Land Use; KBIC Relations and Partnerships; and KBIC Tribal Members' Learning Interests. Figures 3.14 - 3.19 show the results in a graphic compilation of their responses (See Appendix F for numeric five-level Likert response results Tables). A brief summary of respondent comments conclude this section.

#### **3.4.1. Ojibwa Language and Traditions**

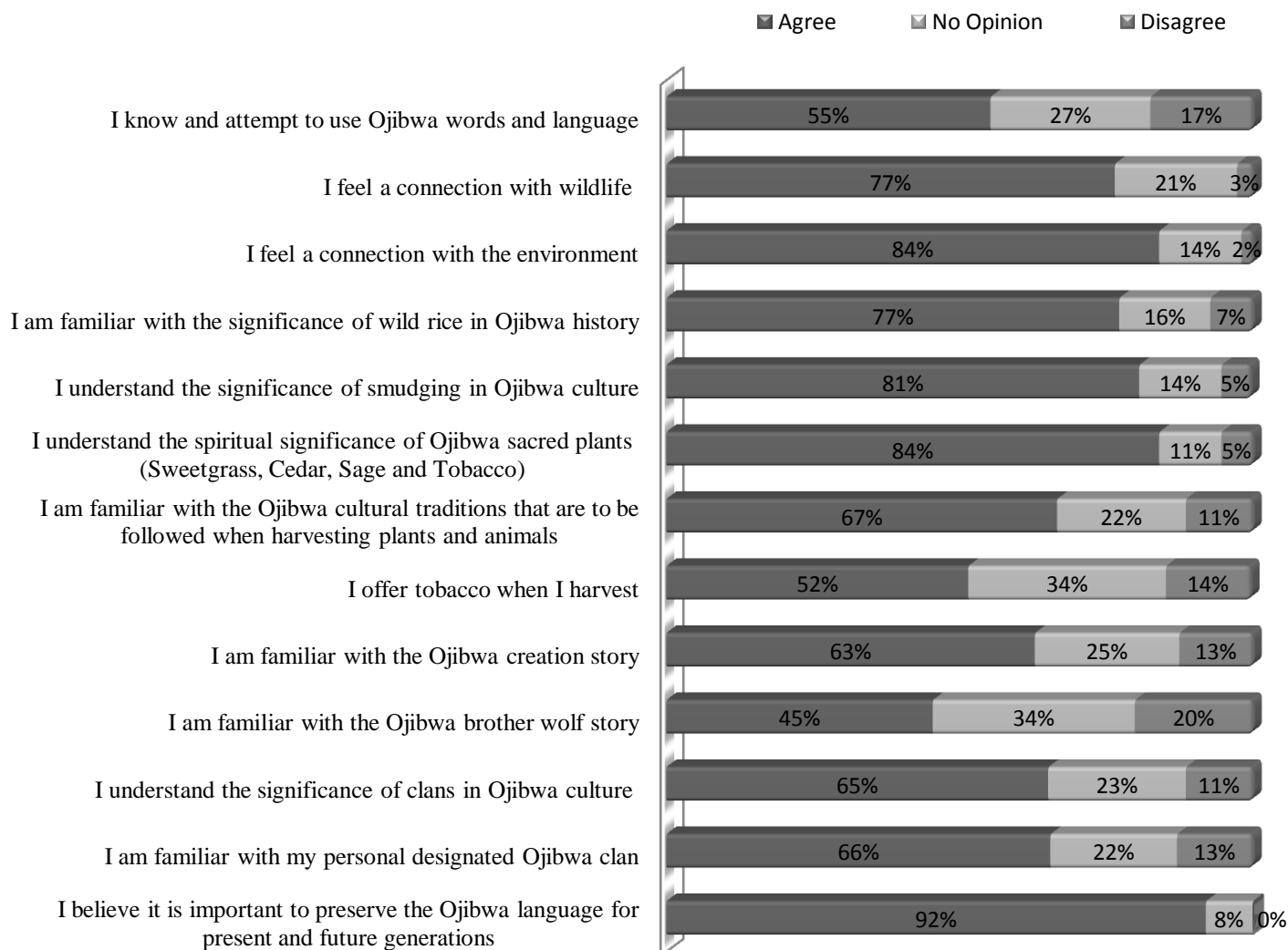
This sub-section contained thirteen statements about the values, beliefs, knowledge, and practices associated with Ojibwa language, harvesting, and additional cultural traditions of the Ojibwa lifeway. Results are shown in Figure 3.14.

Cultural values play an important role in how people view and utilize resources; therefore cultural questions were included in the Survey. Seventy-six percent (76%) of respondents feel a connection with wildlife, 83% feel connected to the environment. Sixty-six percent (66%) of respondents are familiar with the cultural traditions that should be followed when harvesting, while the actual traditional offering of tobacco prior to harvesting is done by 52% of the respondents. Sixty-five percent of respondents were familiar with the significance of clans in Ojibwa culture and 65% were familiar with their own clan. While 63% were familiar with the Ojibwa creation story, less than half (46%) were familiar with the Ojibwa brother wolf story and 21% responded that they did not know the brother wolf story. Most respondents understand the significance of Ojibwa sacred plants (84%) and smudging (80%). Respondents (55%) attempt to use the Ojibwa language and 92% feel it is important to preserve the Ojibwa language. The most notable cultural knowledge gaps based on combined disagree and strongly disagree responses are: knowledge of the Ojibwa wolf story (21%), attempting to use Ojibwa words and language (18%), and practice offering of tobacco with harvest (15%). KBIC will continue to include cultural information in reports and presentations produced from the various programs within the department to help fill these gaps in cultural knowledge. (See Appendix F [F-1] for numeric five-level Likert response results Table.)

#### **3.4.2. KBIC Natural Resources Department and Hatchery Importance**

On the Survey, this sub-section contained eleven different types of natural resources management programs and asked respondents of the importance of each. The types of management and programs included: local wildlife; local fisheries; invasive fish species; water quality; air quality; forest; plants; invasive plant species; hazardous waste; solid waste; and addressing contaminated properties. The survey specifically stated **"The KBIC Natural Resources Department and Hatchery have an important role in the following..."** Results are shown in Figure 3.15.

## Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report



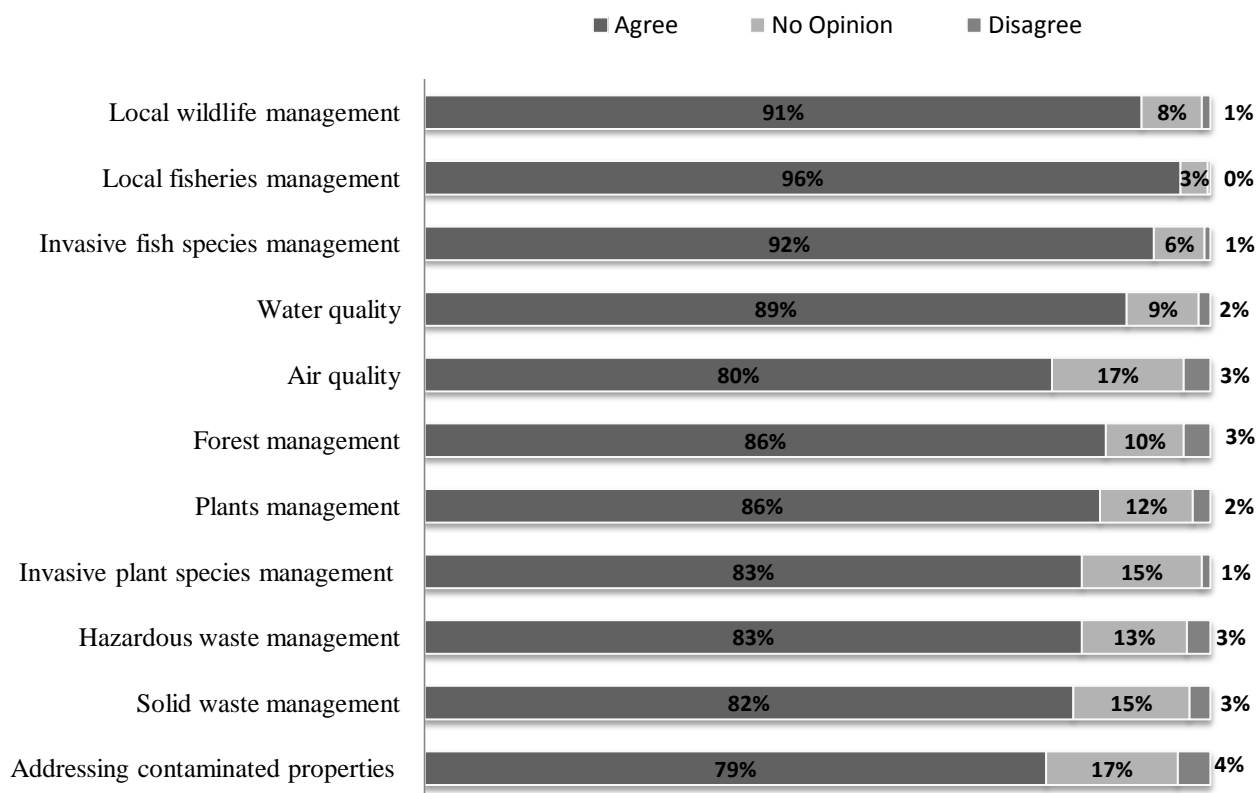
**Figure 3.14 Ojibwa Language and Traditions.**

An overwhelming majority of KBIC community members see the value in work being done at the KBIC-NRD. Based on combined values of strongly agree and agree on the importance of each KBIC-NRD program, responses were ranked in the following order starting with the most valued: local fisheries management (96%), invasive fish species management (92%), local wildlife management (91%), water quality (89%), forest and plant management (86%), hazardous waste management (84%), invasive plant management (83%), solid waste management (82%), air quality (80%) and contaminated properties (79%). (See Appendix F [F-2] for numeric five-level Likert response results Table.)

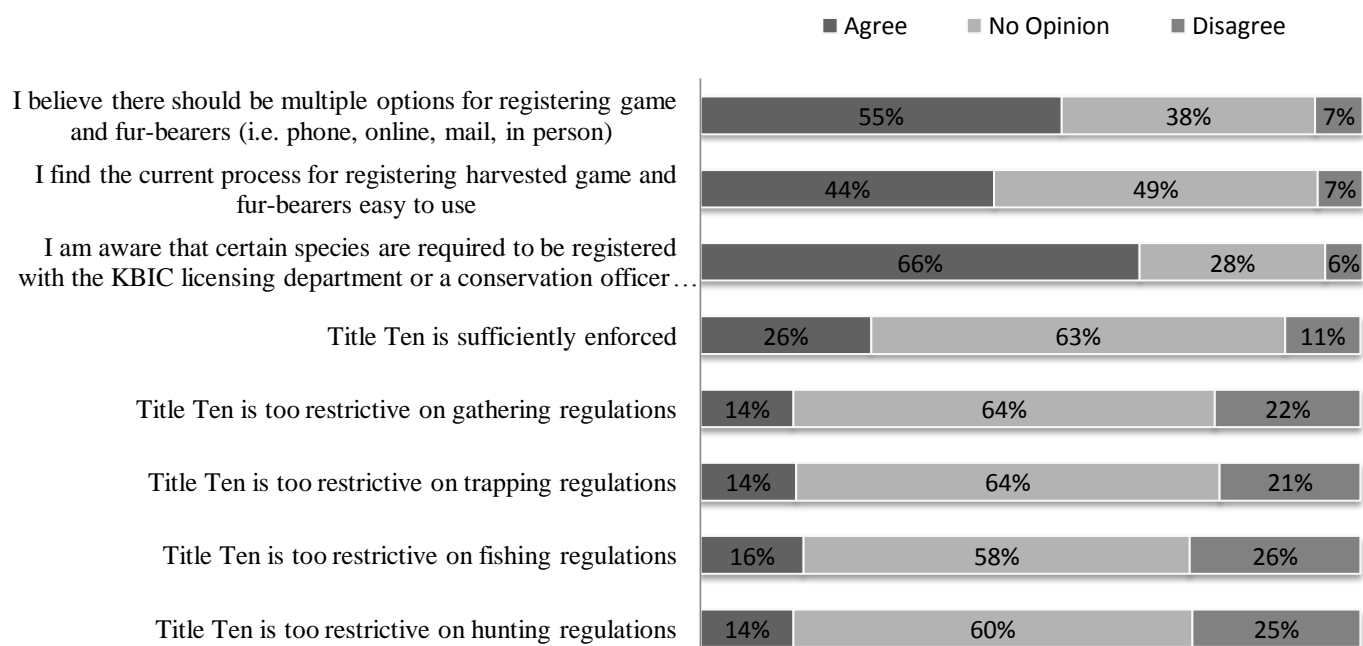
### 3.4.3. KBIC Tribal Code of Law: Title Ten

This sub-section contained eight statements asking respondents' opinions concerning aspects of the KBIC Hunting, Fishing and Gathering Tribal Code of Law known as Title 10. The opinions elicited included harvesting restrictions, enforcement, and registration procedures. Results are shown in Figure 3.16.

## Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report



**Figure 3.15 KBIC Natural Resources Department and Hatchery Importance.**



**Figure 3.16 KBIC Tribal Hunting, Gathering and Fishing Code of Law: Title Ten.**

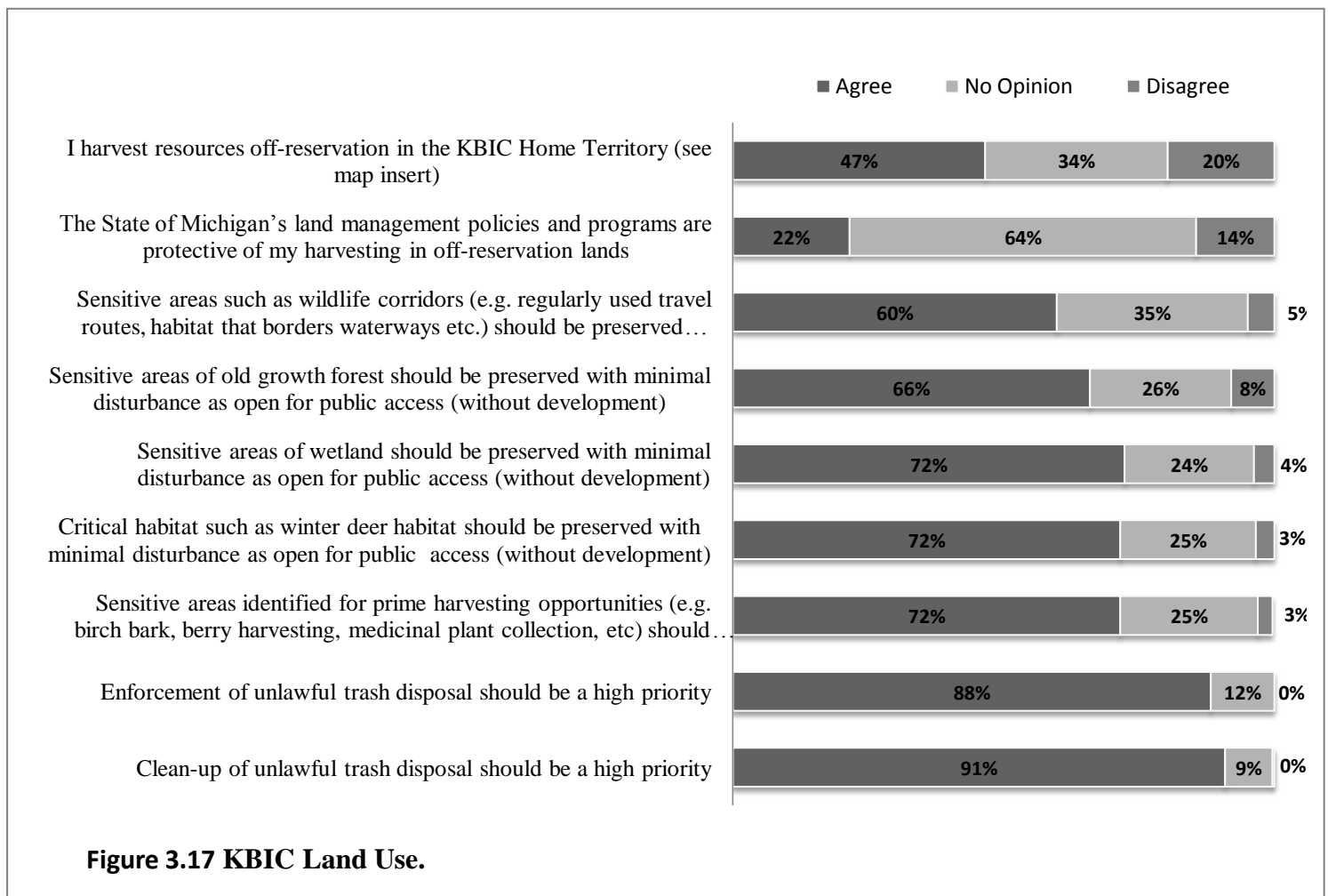
## Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report

There were numerous high values in the “no opinion” category for the KBIC Tribal Hunting, Fishing and Gathering Code of Law: Title Ten section. The “no opinion” responses could be interpreted in the following ways: 1) community respondents were reluctant to provide an opinion, 2) respondents neither agreed or disagreed therefore the code and its enforcement appears to be okay, or 3) they don't know enough about the Code to form an opinion. Most respondents are aware that certain species are required to be registered (67%), while 44% find the current process for registering game easy to use and the same percentage (44%) believe there should be multiple options for registering game. (See Appendix F [F-3] for numeric five-level Likert response results Table.)

### 3.4.4. KBIC Land Use

This sub-section contained nine statements asking respondents' practices and opinions concerning KBIC Land Use. It also asked respondents to consider tribal land management and policies at local and regional levels as well as at state levels. The opinions and practices elicited included harvesting practices, sensitive areas and critical habitat, as well as trash disposal. Results are shown in Figure 3.17.

Respondents (of 264 total) agree that it is valuable to preserve various forested areas such as: wetlands (73%), critical habitat such as winter deer habitat (72%), areas of prime harvesting opportunities (72%), old growth forest (66%), and wildlife corridors (60%). Respondents also felt that enforcement (88%) and cleanup (91%) of unlawful trash disposal should be high priorities. Forty-six percent (46%) of respondents harvest resources off-

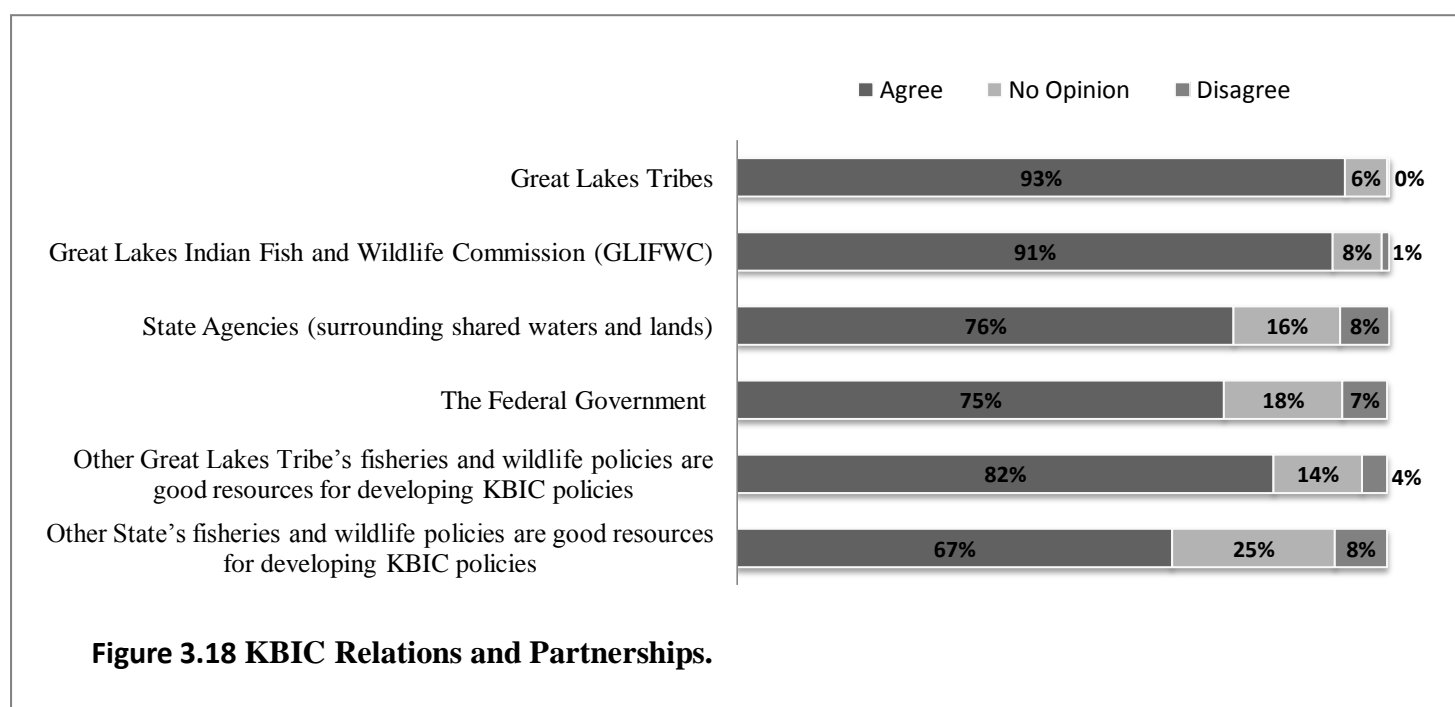


## Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report

reservation. It appears that many respondents were uncertain as to whether or not State of Michigan's land management policies are protective of their harvesting in off-reservation lands, 64% had no opinion while 22% agreed and 14% disagreed. Of those that did not select strongly agree or agree for land use questions, most other responses were of no opinion. (See Appendix F [F-4] for numeric five-level Likert response results Table.)

### 3.4.5. KBIC Relations and Partnerships

This sub-section contained six statements asking respondents' opinions regarding KBIC Relations and Partnerships with governing entities at local, regional, state, and national levels. Specifically the survey stated **“Good relations are important for sound management of Tribal wildlife, fisheries and natural resources. The KBIC should maintain and enhance partnerships with the following entities...”** Results are shown in Figure 3.18.

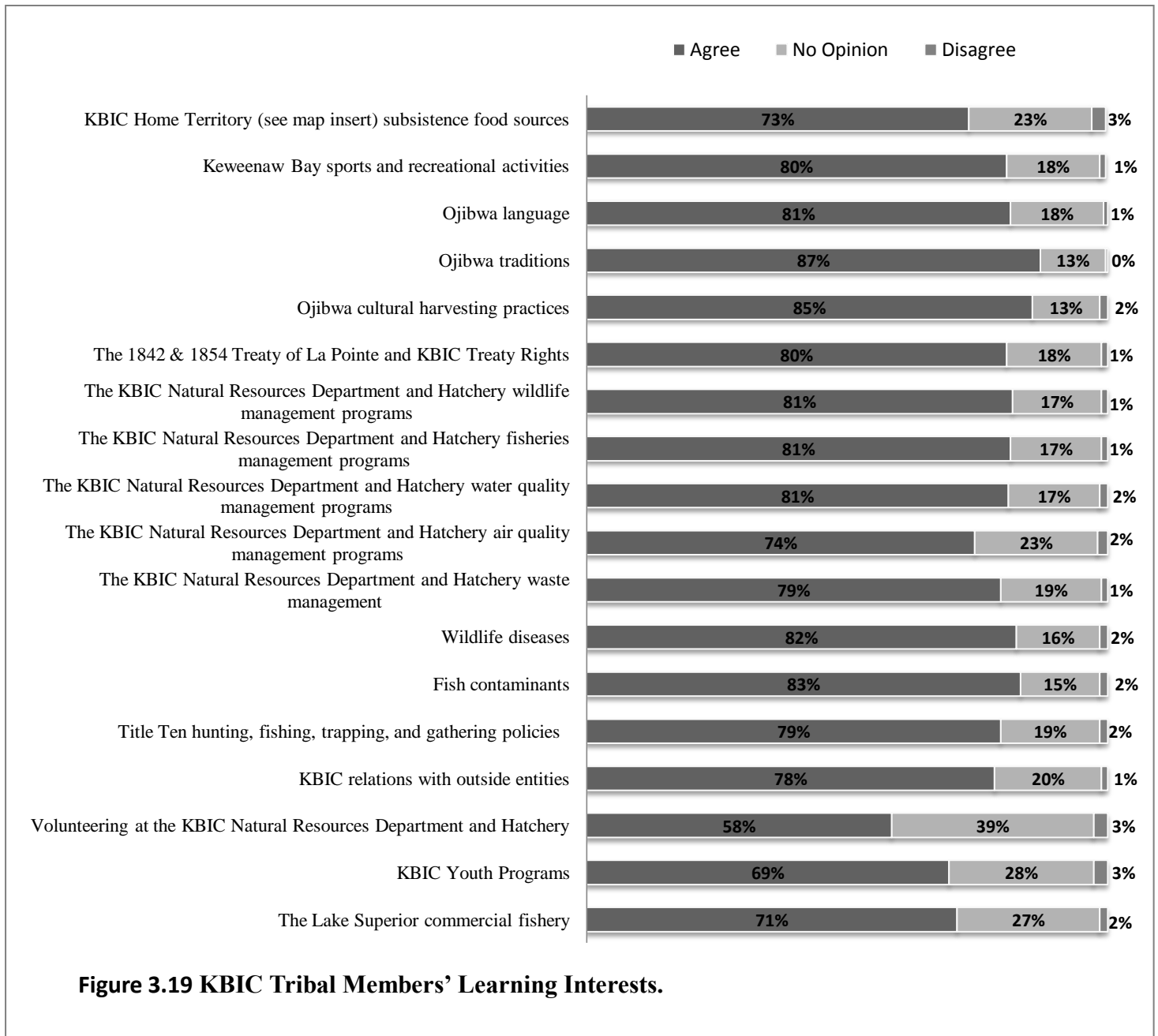


Based on combined values of strongly agree and agree on the importance of each potential partner agency, support for partnerships were ranked in the following order starting with the most valued: Great Lakes Tribes (94%), Great Lakes Indian Fish and Wildlife Commission (91%), other Tribal policies as resources (82%), State Agencies with shared waters and lands (76%), the Federal Government (75%), State policies as resources (67%). Overall, a majority of KBIC community members agree that we should be considering information and policies of other organizations and agencies in our KBIC projects and policies. (See Appendix F [F-5] for numeric five-level Likert response results Table.)

### 3.4.6. KBIC Tribal Members' Learning Interests

This sub-section contained eighteen statements asking respondents to consider multiple topics addressed in the Survey and their interest in learning more about KBIC Wildlife and Natural Resources, the Ojibwa lifeway, and things that impact Keweenaw Bay and its people. The survey specifically stated **“I would like to learn more about the following...”** Results are shown in Figure 3.19.

## Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report



Respondents appear to be eager to learn more about the programs and projects taking place at the KBIC-NRD. Based on the combined percentages of strongly agree and agree with wanting to learn more, the following divisions within the department ranked in value as follows: Ojibwa cultural harvesting practices (86%), fish contaminants (83%), wildlife management (82%), wildlife diseases (82%), fisheries management (81%), water quality (81%), Ojibwa language (81%), KBIC sports and recreation activities (80%), treaty rights (80%), waste management (79%), relations with outside entities (78%), Ojibwa traditions (76%), air quality management (74%), subsistence food sources (73%), Lake Superior commercial fishery (70%), KBIC youth programs (69%), and volunteer opportunities at KBNRD (58%). KBIC-NRD will continue to maintain an updated website at <http://nrd.kbic-nsn.gov> to provide progress reports and opportunities to communicate with NRD staff. (See Appendix F [F-6] for numeric five-level Likert response results Table.)

### **3.4.7. KBIC Survey Respondents' Comments**

For *Ojibwa-based Values, Knowledge, and KBIC Policies*, KBIC Survey respondents' comments were organized into four main topics. Included within each topic are common themes of priority interest and concern to Council governance and KBIC-NRD management and policies.

1. KBIC Harvesting Laws and Policies, and Youth Programs: These comments address opinions and concerns about a variety of harvesting laws and policies including KBIC Youth Programs. They also address Treaty Rights.
2. Natural Resources Department and Hatchery: These comments discuss concerns and suggestions for the natural resources and environment for the Department.
3. Traditional and cultural knowledge and practices: These comments include respondents' concerns about Ojibwa culture with a focus on language, traditional lifeways and knowledge, as well as clans.
4. About the Survey Comments: These comments address the Likert scale as well as respondents' hopes in the use of the Survey Results.

A complete list of respondent comments on *Ojibwa-based Values, Knowledge, and KBIC Policies* can be found in Appendix G.

## 4. Conclusion

The 2013 Survey and Report intentionally targeted all members of the KBIC and did not focus exclusively on licensed hunters, fishers, and trappers as did previous Hunter Surveys and Reports (Nankervis, Ravindran, and Mensch 2009). Additionally, the 2013 focus widened to include not only wildlife species and policies but vital natural resources in the region as well as the aim to realize cultural significance of fish, wildlife, and natural resources to the Community. This Report reveals a substantial proportion of harvesting beliefs, values, and practices that although was known, was unknown in its degree of importance and further, had not been documented by the KBIC-NRD. Future Surveys and Reports will continue to engage the wider Community in the participation of gathering information needed to construct protective policies and projects that reflect KBIC needs.

These results of the 2013 Survey supports previous assertions: the KBIC continues lifeways dependent on multiple species of wildlife as well as many natural resources and reflects a substantial reliance. Past, present, and future harvesting by Tribal members and KBIC as a whole is central to beliefs, values, and practices associated with wildlife and natural resources in Keweenaw Bay. This centrality shows that harvesting is not simply based on subsistence but also, that harvesting practices support cultural, environmental, social, and political systems for the KBIC. This will continue to be the guiding purpose of KBIC Surveys and the Reports that follow, ensuring these systems remain connected as well as a reflection of one another.

Results of this Survey will be considered throughout the development of a KBIC Tribal Wildlife Management Plan. We intend to ensure that wildlife management on and around the KBIC Reservation is consistent with community values, other Department plans within the Tribe, and amply protective to preserve land and wildlife resources for seven generations and beyond.

Because the KBIC are affected by beliefs, values, and practices outside the region, this Report has the potential to support Community lifeways in additional ways. Extra-territorial impacts, development and industrial activities, and outside governments and their policies directly affect the health and well-being of the KBIC. This Report contains substantial information of the interconnected relations existing between Community members and the environment of Keweenaw Bay. It will continue to remain necessary to participate in larger arenas of governance, building institutional partnerships, and aim to have an equal voice in decision- and policy-making in order to sufficiently protect the Keweenaw Bay people and environments. Engaging in these roles will continue to grow in the future.

And finally, this Report establishes the significant interests within the KBIC in its willingness to learn more about wildlife and natural resources. These interests are heightened concerning Ojibwa culture and knowledge; Ojibwa Treaty Rights; as well as management policies within the Community *and* outside the Community. This reveals the realization among Community members that Ojibwa tradition, Treaty Rights, and KBIC political engagement remain vital components in the active restoration and protection of Keweenaw Bay wildlife, natural resources, environment, and especially, the Ojibwa people.



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## Appendix A: KBIC *Home Territory* Map (Questionnaire Map Insert)

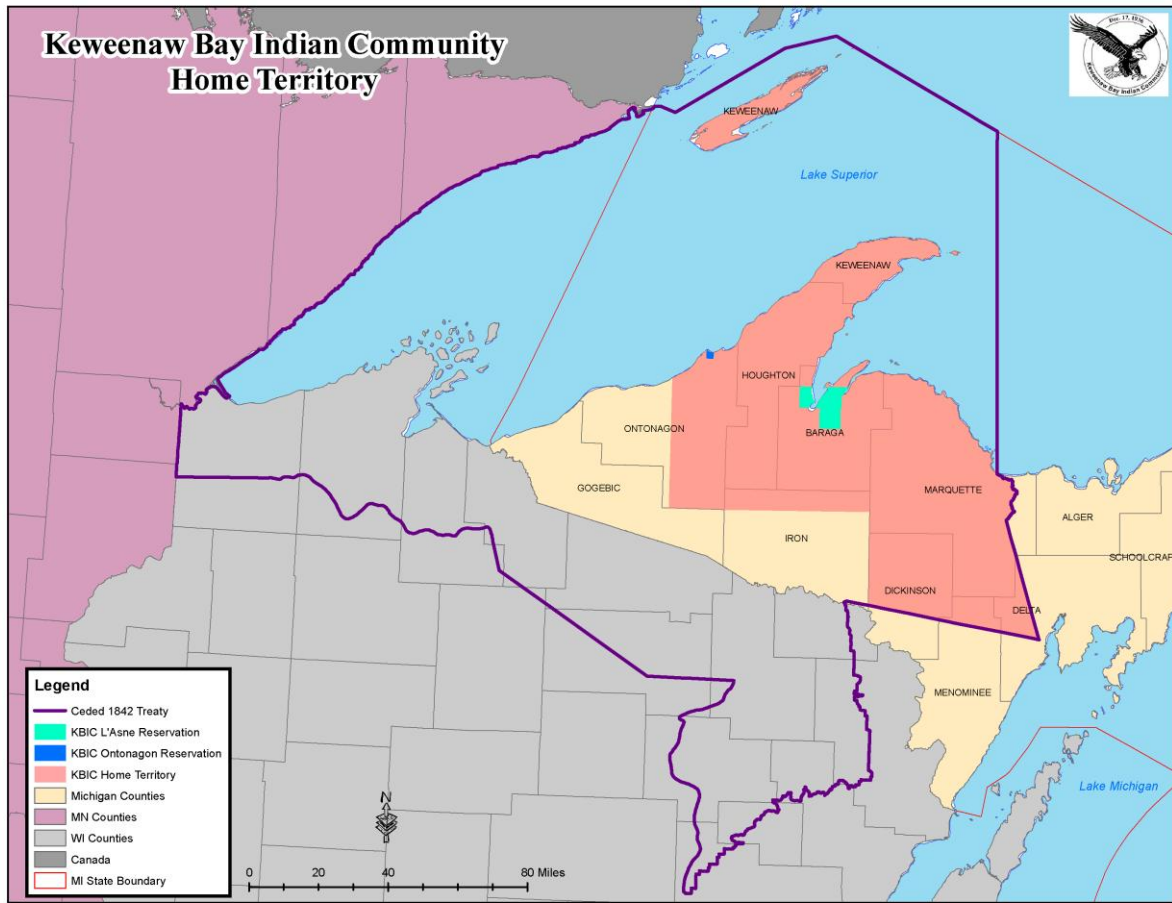


Figure A.1 KBIC *Home Territory* Map (Questionnaire Map Insert)

## Appendix B: 3.2 *Natural Resources' Use and Reliance* Total Percentages of (Likert) Responses' Tables

**Table B-1 KBIC natural resources and harvesting activities necessary for subsistence (in support of a food source and/or livelihood).**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
White-tailed deer	43%	41%	9%	3%	4%	264
Bear	6%	20%	42%	17%	15%	264
Rabbits	14%	32%	34%	12%	7%	264
Ruffed grouse and/or woodcock	23%	38%	27%	8%	5%	264
Wild Turkey	18%	41%	28%	7%	6%	264
Ducks and geese	14%	25%	44%	10%	7%	264
Lake Superior fish	53%	34%	9%	2%	1%	264
Inland lake fish	41%	40%	15%	2%	2%	264
Spearing fish	39%	35%	18%	3%	5%	264
Netting fish	33%	30%	24%	6%	6%	264
Wild rice	36%	38%	20%	3%	3%	264
Wild berries	51%	32%	14%	2%	2%	264
Wild plants	30%	31%	29%	6%	3%	263
Trees	51%	31%	13%	4%	2%	264
Furbearer species	15%	29%	36%	13%	8%	264

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**Table B-2 KBIC natural resources and activities important for sports and/or recreation.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
Hunting white-tailed deer	42%	30%	14%	9%	5%	264
Hunting bear	9%	17%	39%	17%	18%	264
Hunting rabbit	11%	34%	34%	13%	8%	264
Hunting game birds	28%	34%	24%	8%	6%	264
Hunting wild turkey	18%	36%	32%	8%	7%	264
Hunting waterfowl	13%	26%	43%	9%	9%	263
Fishing with rod & reel	49%	33%	9%	4%	5%	263
Ice fishing	36%	29%	23%	7%	6%	264
Spear fishing	36%	28%	21%	7%	7%	264
Harvesting wild rice	24%	27%	36%	7%	7%	264
Harvesting berries	39%	38%	15%	5%	4%	264
Harvesting wild plants	23%	29%	36%	6%	6%	264
Harvesting trees or wood products	41%	33%	16%	5%	5%	264
Trapping furbearer species	11%	22%	44%	13%	10%	264
Non-consumptive wildlife viewing	25%	34%	32%	4%	4%	264
Water recreation	56%	32%	8%	1%	2%	264
Forest recreation	56%	34%	7%	0%	2%	264
Established park-like settings designed for people	52%	34%	9%	2%	2%	264
Public-access forest not specifically designated for people	30%	38%	27%	4%	2%	264

## **Appendix C: 3.2 *Natural Resources' Use and Reliance* Respondent Comments**

### **C-1: Hunting, fishing, and gathering, practices and policies**

I would like baiting for deer banned while hunting with a rifle. Children are not being taught anything about the environment or survival. There are too many spike horns and four horns being taken and therefore the lack of larger bucks. This also creates an imbalance of buck to doe ratio. I support hunting deer (over bait) with a bow because it allows for better positioning and therefore cleaner kills and less deer running with arrows hanging out them and dieing somewhere else in the woods.

Well to me and others, I think the Bay should be shut down for netting. The line should be past Carla's restaurant. The fish aren't like they use to be, they are going down in number. Natives and non-natives tell me this on the Ice

I enjoy hiking in the forest and I have hunted and fished but I do not hunt or fish now. I do pick quite a few berries.

I would like to see turkey hunted later, once they are migrated more. Right now they aren't.

I think we need to stock more fish in Keweenaw Bay. At one time there were large schools of brown trout. I think we should claim Sudden Lake and other local lakes to give tribal walleye spearkers a selection of areas to spear (Bob Lake, St. Kathryn). When we target one lake (Chassell) we are also a target for vandalism to our trucks and trailers and no Law Enforcement to watch out for us. That is why we should continue with the walleye spearing programs assessments and then plant accordingly. Tribal members that do not follow rules and regulations for hunting and Fishing, tagging, limits, and registration should be held accountable and should have their privileges lost for that season. Tags and card taken as punishment, if we cannot enforce tribal and nontribal limits on our reservation, then this Survey is useless.

If we are going to have and enforce regulations, we need to keep punitive review.

There is too much netting. It has a negative effect on our fish population. The tribal fisheries are doing an excellent job on planting. Our family fishes a lot and we appreciate the effort.

I do not gather. I don't know what a Pine Marten/Fisher is. I don't know the Code of Law or what Title Ten is

I hunt, fish and pick berries. The questions were a little hard to understand.

I think the rules and regulations on netting fish are not correct.

### **C-2: Pollution**

Noise Pollution!!! I'd love to see manufactures strongly curb the noise (also law enforcement) on ATV's and snowmobiles. Some make their machines louder but manufactures can do a lot to baffle the noise.

I would like to see the "forests cared for better for our future children; i.e.; SAY NO TO KENNECOTT" BOO!!

### **C-3: Public access**

Question R. Natural beauty w/ public access is beautiful-leave it alone. People are slobs.

Safe walk ways around the Bay area, Bike trails.

Too much of the shoreline is privately owned and limits access and viewing

I am handicapped so I am limited to hiking trails, ricing etc.. Berry picking is more recreational

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I'm handicap-establishing walk ways for handicap would be interesting for me.

If at all possible, it would be nice to have areas such as swamps/weedlands? "Spelling- wetlands?" (people free) in some areas

Would like to see more hiking trails and ATV or wildlife viewing

It's very hard for the elders to get to restrooms or picnic tables.

I enjoy the peace and serenity in the woods. Sometimes I fear encounters with potentially mad critters but it's not enough to keep me out, I use the woods, their home and am respectful. I would like more hiking paths but then again would that be an intrusion/disruption to our relatives in the woods.

L'Anse should have more lake side parks for people to enjoy the lake.

I would like to see us start a campground close to good fishing and hunting, rustic type/no lights, kinda what they have at Prikket Dam, Bucks is nice but no hunting or fishing (good fishing) and is used for a summer long party.

I am disgusted with the forest service and the way they are restricting public use of our property, because of their policy not law.

It's important to me to have recreational access to lakes and streams in the area.

### **C-4: For subsistence only**

I don't believe killing animals for anything other than to eat. It's not good to take more than you can eat.

I hunt/fish/gather but all is for a purpose not sport.

I don't think animals should be hunted for sport.

I believe in the rights to obtain, ones subsistence was hunting, fishing etc. Although I do not hunt I would like to learn at least have the skill. I believe in hunting in a respectful fair manner. It may be harder than baiting but it evens out the field. I do not believe in sports and recreational hunting.

Sport/Recreation most of the questions are a food source, not for fun or to be play with.

**I DON'T TAKE RESOURCES FOR SPORT OR FUN-RECREATION!**

## Appendix D: 3.3 *Wildlife Species' Values and Management* Total Percentages of (Likert) Responses' Tables

**Table D-1 KBIC values and management of Wolves.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
I like knowing wolves live in the surrounding forests of the Upper Peninsula	28%	38%	12%	13%	9%	264
I believe there is an important relationship between wolves and the Ojibwa people	28%	39%	24%	7%	3%	264
Wolves play an important role in a forest ecosystem	26%	45%	13%	12%	4%	264
I believe wolves have a negative impact on white-tailed deer populations	17%	27%	24%	21%	10%	264
Wolves are a threat to human safety	11%	22%	26%	25%	16%	264
Some forested areas should be preserved with minimal disturbance for large predators to help avoid conflicts with humans	24%	39%	21%	12%	4%	264
Wolves should have complete protection from hunting and/or trapping	17%	19%	24%	27%	13%	264
Wolves should only be hunted and/or trapped if they are causing depredation issues for domestic animals	14%	42%	19%	18%	6%	263
Wolves should only be hunted and/or trapped if they are posing a direct threat to human safety.	27%	43%	9%	13%	7%	263
Wolves should be allowed to be hunted and/or trapped similar to other non-protected game animals	14%	23%	23%	27%	13%	263
KBIC Reservations should be set aside as Wolf Sanctuary	16%	22%	22%	22%	16%	263
The KBIC Home Territory should be set aside as Wolf Sanctuary	16%	22%	24%	23%	15%	263
Great Lakes Tribes should be more active in monitoring wolves	22%	50%	21%	3%	3%	263
I believe it would be worth the time and cost to relocate wolves that cause depredation on domestic animals rather than kill them	15%	30%	24%	21%	11%	263
I would be okay with having wolves caught for depredation on domestic animals being released into nearby forests	10%	30%	28%	22%	10%	263
I feel confident that the Michigan DNR is accurate in their 2011 population estimates of 687 wolves and 131 wolf packs in the Upper Peninsula of MI	4%	24%	42%	20%	10%	263

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**Table D-2 KBIC values and management of Moose.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
I like knowing moose live in the surrounding forests of the Upper Peninsula	53%	41%	4%	1%	0%	263
I would like to see more moose on or near the Reservation	46%	41%	9%	3%	0%	263
I feel that information from the Michigan DNR about the Michigan moose population is accurate enough to predict potential effects hunting would have on the population	8%	33%	36%	17%	6%	263
I believe the current moose population in the Upper Peninsula could survive and reproduce just fine if annual hunting for moose was allowed	4%	20%	27%	36%	14%	263
I believe KBIC should be involved in monitoring the moose population	31%	52%	13%	2%	2%	263
Some forest areas should be preserved with minimal disturbance for moose to be able to minimize human disruption and conflict (e.g. road collisions)	28%	47%	16%	6%	3%	263

**Table D-3 KBIC values and management of Black Bear.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
I like knowing bears live on and around the Reservation	39%	44%	9%	6%	2%	262
I believe there is an important relationship between bears and the Ojibwa people	43%	37%	15%	3%	0%	261
Bears are dangerous for human safety	3%	13%	23%	45%	16%	262
Bears should <b>not</b> be hunted on the KBIC Reservation	15%	16%	26%	36%	8%	264

**Table D-4 KBIC values and management of Turkey.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
It is important to maintain a local wild turkey population that is large enough to sustain annual hunting in the KBIC Home Territory	37%	45%	15%	3%	0%	264
I would like to see more wild turkey in the KBIC Home Territory	38%	48%	12%	2%	0%	264
I would be willing to limit hunting to only male turkeys for three years in order to protect their reproductive success and help increase the number of wild turkeys	29%	45%	20%	5%	1%	264
KBIC should work with partners to enhance habitat for wild turkey in the KBIC Home Territory	23%	51%	13%	12%	2%	264



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**Table D-5 KBIC values and management of White-tailed Deer.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
I believe there are plenty of deer for KBIC hunters	23%	51%	13%	12%	2%	264
Hunting white-tailed deer over bait is an acceptable method of hunting	17%	46%	20%	12%	5%	264
I would be willing to stop providing bait for deer for three years if a transmittable disease threatened the local deer population	34%	44%	14%	5%	3%	264
Winter habitat should be enhanced and/or preserved to help protect the white-tailed deer population on the KBIC Reservation from potential severe winter die offs	27%	51%	17%	3%	1%	264
Predators are hurting the ability to hunt white-tailed deer by reducing the population of deer	13%	28%	30%	22%	7%	264
Tribal and non-tribal hunters have taken too many white-tailed deer on and around Reservation lands in recent years	8%	22%	41%	24%	5%	264
I believe there are too many female deer in comparison to numbers of male deer	8%	30%	49%	13%	1%	264

**Table D-6 KBIC values and management of Cougar.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
I like the possibility that cougars live in the surrounding forests of the Upper Peninsula	15%	35%	19%	23%	8%	264
I would be afraid to go into the forest if I knew a cougar was in the area	19%	30%	14%	29%	8%	264
I believe cougars are currently living and reproducing in the Upper Peninsula of Michigan	23%	58%	16%	1%	0%	263
I have seen a cougar in the my local area	15%	14%	31%	28%	12%	264
I believe that cougars do not reside in the Upper Peninsula but only pass through on a rare occasion	2%	10%	26%	40%	23%	264

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**Table D-7 KBIC values and management of Lynx and Bobcat.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
I believe lynx live in the surrounding forest of the Upper Peninsula	14%	45%	36%	3%	2%	264
KBIC should enhance/protect some areas that can better support lynx and their primary prey, snow shoe hare	13%	35%	43%	9%	1%	264
I like knowing that bobcat live in the forests of the Upper Peninsula	19%	45%	25%	9%	2%	264
I have seen a bobcat in the wild in the Upper Peninsula	17%	29%	30%	16%	8%	264
I believe that I would be able to tell a bobcat from a lynx if I saw it in the forest	17%	32%	31%	14%	6%	264

**Table D-8 KBIC values and management of Bats.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
I like seeing bats	14%	33%	17%	23%	13%	264
I believe we need bats for insect control and pollination	33%	51%	12%	3%	2%	264
I am aware of a disease that threatens to kill off bat species across the nation	9%	28%	40%	18%	5%	264
I believe monitoring bats for disease is important	23%	54%	20%	2%	1%	264
KBIC currently has no information on bats within the KBIC Home Territory; I believe KBIC should start monitoring the bat population	15%	38%	39%	7%	2%	264

**Table D-9 KBIC values and management of Pine Marten/Fisher.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
I would recognize a pine marten or a fisher if I saw one	20%	37%	19%	19%	5%	264
Pine marten/fisher take too many game birds	5%	14%	61%	18%	3%	264
Pine marten/fisher are important to species diversity	6%	39%	47%	5%	2%	264
Pine marten/fisher are good for controlling small rodent populations	8%	48%	40%	3%	1%	264
Pine marten/fisher are good for controlling porcupine populations	4%	25%	63%	7%	1%	264
Pine marten/fisher populations should be monitored more closely so that trapping regulations can be revised accordingly	9%	45%	39%	5%	2%	264

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**Table D-10 KBIC values and management of Fish.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
There are plenty of fish in Lake Superior for our KBIC fishers	13%	40%	18%	22%	8%	264
There are plenty of fish in the Home Territory (see map insert) in inland lakes and streams for our KBIC fishers	10%	38%	22%	24%	5%	264
I purchase fish from local Tribal commercial fishers	13%	46%	23%	12%	6%	264
Someone in my family (immediate or extended) benefits (health, culture, economically) from commercial fishing	19%	33%	23%	19%	6%	264
I harvest and eat local fish three or more times per week	6%	12%	30%	43%	10%	264
I harvest and eat local fish at least once per week	8%	23%	23%	41%	6%	264
I am aware that fish in our local waters have varying levels of harmful contaminants (chemicals such as mercury & PCBs)	17%	59%	19%	4%	1%	264
I am familiar with the State of Michigan's Fish Advisory (2011-2012) recommending limits on fish consumption due to contaminants	12%	47%	27%	11%	2%	264
I am familiar with Great Lakes Indian Fish and Wildlife Commission's (GLIFWC) Mercury Maps (inland lakes) (2010) recommending limits on oga (walleye) consumption due to mercury	11%	39%	30%	17%	3%	264
It is easy to <i>locate</i> Michigan information regarding fish contaminants and advice on fish consumption	5%	40%	39%	13%	3%	264
It is easy to <i>locate</i> GLIFWC information regarding fish contaminants and advice on fish consumption	6%	41%	38%	12%	3%	264
It is easy to <i>understand</i> Michigan information regarding fish contaminants and advice on fish consumption	5%	41%	38%	13%	4%	264
It is easy to <i>understand</i> GLIFWC information regarding fish contaminants and advice on fish consumption	5%	45%	37%	11%	2%	264
I check the status of the State of Michigan's Fish Advisory (2011-2012) recommendations for water bodies and fish species that I harvest	4%	19%	47%	24%	6%	264
I check the status of GLIFWC's Mercury Maps (2010) recommendations for water bodies where I harvest	3%	21%	46%	23%	6%	264
I adjust my fish consumption based on the State of Michigan's Fish Advisory (2011-2012) recommendations	2%	18%	43%	27%	9%	264
I adjust my fish consumption based on GLIFWC's Mercury Maps (2010) recommendations	3%	19%	45%	27%	7%	264

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	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
I use other information (as an alternative to Fish Advisories & Mercury Maps) to protect myself from the potential harms posed by contaminants	3%	22%	49%	20%	5%	264
The State of Michigan's available fish contamination and fish consumption information is reliable	3%	23%	63%	9%	2%	264
GLIFWC's available fish contamination and fish consumption information is reliable	3%	30%	61%	4%	1%	264

**Table D-11 KBIC values and management of Other Species.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
I like to observe the wide variety of bird species that live in the Upper Peninsula	36%	50%	12%	1%	1%	264
I feed wild birds on my property	27%	36%	19%	13%	4%	264
I like to hear the frogs and toads during summer months in the Upper Peninsula	45%	44%	8%	2%	1%	263
I try to avoid striking turtles with my vehicle when I see them crossing roads	54%	39%	5%	1%	1%	264
I believe it is valuable that KBIC-NRD monitors amphibian and reptile populations on and near the Reservation	33%	41%	22%	2%	1%	264
I believe muskrats should be managed (trapped) from areas where KBIC-NRD manages for wild rice to protect rice crop productivity	20%	43%	32%	5%	0%	263

## **Appendix E: 3.3. *Wildlife Species' Values and Management* Respondent Comments**

### **E-1: Wolves**

1-C[Wolves important role in forest ecosystem]. not this Area. 1-L[Home Territory as Wolf Sanctuary]. No, Sites. 1-N [relocate wolves that cause depredation]. Doesn't make any sense. 1-P [Michigan DNR accurate 2011 population estimates]. What! Too many for here/ I know there's more than that up here.

6-B. Would be afraid of wolves than cougar/ Can't even spear at night without seeing (wolves).

1.Wolves Q.p [Michigan DNR accurate 2011 population estimates] -Much more

1-P[Michigan DNR accurate 2011 population estimates].There are more than that.

There is no truth what so ever of the stance the KBIC or other 1842 tribes have taken relations to the wolf. It is a delusion that tribes never harvested wolves. All one has to do is go back into Hudson Bay archives and see how many wolves hides were sold at the local fur trading posts during the 1800's.

I agree that there are enough whitetail deer at this time for KBIC hunters but, the population of deer is definitely less and the hunting is becoming more difficult. I believe it is mostly because of the wolves. I witnessed one wolf kill 7 yearling deer in an eight week period.

### **E-2: Fish, fishing, and fish consumption**

I don't look at fish advisories.

10-JMN [GLIFWC & MI fish consumption advisories]. Never See Any

10-U[reliable advisories] How would anyone know?

We eat local fish once a week

I would rather eat a walleye from Huron Bay than PCB-Mercury loaded walleye from Portage Lake. (I could taste the difference)

I do not know about fish consumption and contamination reports. This is scary to me as we eat fish.

I just like to fish and cook and eat them.

Do not eat fish. Do it for fun. I either do live release or give it to someone that will use it

I would eat more fish if I had the chance.

Father used to be a commercial fishing man. Husband and I fish regularly. Would like to see a no netting rule in the Bay

10-A. Lake Superior Needs bigger and more fish/ the fish have gone down in population a lot. Nets need to be stopped in Bay.

I think that the KBIC Tribal commercial fisherman should be able to harvest and sell a walleye like other lake superior tribes. The harvest should be monitered by tags similar to Lake Trout.

I think Tribal commercial fisherman should have some kind of way to harvest walleye just like the other tribe in GLIFWC

**E-3: All, other, and/or additional species**

Bears are one of our clan, which should be protected, instead of being hunted at least on tribal lands.

I would like to see hunting after dark made illegal—too many safety issues.

5-C [stop providing bait for deer for three years if a transmittable disease threatened the local deer population]. Should only be one per season. 5-F [hunters have taken too many white-tailed deer]. That statement-no one knows what happens out there.

8-E[Bats]) Come check my culvert we have a nice nest for bug control.

2-F [Moose]= Humans (we) came into their territory. 5-c= This is non-native thinking. 5-f= non-tribal hunters

4-D[Turkey]. Plant oats

Need more info on the variety of bird species (Cranes, nests, etc) turtles

I believe that our animals should be monitored so they do not become extinct because of my heritage.

Many times I have helped a turtle across the road. I do avoid hitting any animal so I don't cause an accident. All animals have the right to live in the community and woods, they feel pain and hurt just as us people taking a pet of any kind should love and treat it as part of the family or don't have one!!

**MUSKRATS ARE THE LEAST THREAT TO WILD RICE WHEN COMPARED TO ALL OTHERS**

Regarding wolves, bear, cougar, bobcat and lynx- I have not seen any although I do go into the woods and follow tracks and try to identify them. I need to gain more knowledge about these critters-should I encounter them face to face in the woods. I do not want to be afraid but want to be safe and protect myself.

I put leftover food on a stump in my backyard and the crows eat it

**E-4: "No opinion"**

Oftentimes I circled "no opinion" because I cannot make an informed opinion

In section B when I answered "no opinion", it is because I don't know anything about what is being asked and even enough information to form an opinion.

## Appendix F: 3.4 Ojibwa-based Values, Knowledge, and KBIC Policies Total Percentages of (Likert) Responses' Tables

**Table F-1 Ojibwa Language and Traditions.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
I know and attempt to use Ojibwa words and language	11%	44%	27%	16%	2%	264
I feel a connection with wildlife	25%	51%	21%	2%	1%	264
I feel a connection with the environment	29%	55%	14%	1%	1%	264
I am familiar with the significance of wild rice in Ojibwa history	25%	52%	16%	6%	1%	264
I understand the significance of smudging in Ojibwa culture	30%	50%	14%	4%	1%	263
I understand the spiritual significance of Ojibwa sacred plants	31%	53%	11%	5%	0%	264
I am familiar with the Ojibwa cultural traditions that are to be followed when harvesting	21%	45%	22%	11%	0%	264
I offer tobacco when I harvest	22%	30%	34%	12%	3%	263
I am familiar with the Ojibwa creation story	21%	42%	25%	11%	1%	264
I am familiar with the Ojibwa brother wolf story	16%	30%	34%	19%	2%	264
I understand the significance of clans in Ojibwa culture	20%	45%	23%	11%	1%	264
I am familiar with my personal designated Ojibwa clan	23%	42%	22%	11%	2%	264
I believe it is important to preserve the Ojibwa language for present and future generations	54%	38%	8%	0%	0%	264

**Table F-2 KBIC Natural Resources Department and Hatchery Importance.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
Local wildlife management	45%	46%	8%	1%	0%	263
Local fisheries management	54%	42%	3%	0%	0%	263
Invasive fish species management	48%	44%	6%	1%	0%	263
Water quality	46%	43%	9%	1%	0%	263
Air quality	41%	39%	17%	3%	0%	263
Forest management	42%	44%	10%	2%	1%	263
Plants management	41%	45%	12%	2%	0%	263
Invasive plant species management	41%	42%	15%	1%	0%	263
Hazardous waste management	43%	41%	13%	2%	1%	263
Solid waste management	41%	41%	15%	2%	1%	263
Addressing contaminated properties	41%	38%	17%	3%	1%	263

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**Table F-3 KBIC Tribal Hunting, Fishing and Gathering Code of Law: Title Ten.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
Title Ten is too restrictive on hunting regulations	4%	10%	60%	24%	1%	264
Title Ten is too restrictive on fishing regulations	4%	12%	58%	25%	1%	264
Title Ten is too restrictive on trapping regulations	3%	11%	64%	20%	1%	264
Title Ten is too restrictive on gathering regulations	3%	11%	64%	21%	1%	264
Title Ten is sufficiently enforced	4%	22%	63%	6%	5%	264
I am aware that certain species are required to be registered with the KBIC licensing department or a conservation officer within 5-7 of harvest	15%	52%	28%	4%	2%	263
I find the current process for registering harvested game and fur-bearers easy to use	8%	36%	49%	5%	2%	263
I believe there should be multiple options for registering game and fur-bearers (i.e. phone, online, mail, in person)	14%	40%	38%	6%	2%	263

**Table F-4 KBIC Land Use.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
I harvest resources off-reservation in the KBIC Home Territory	16%	30%	34%	16%	3%	264
The State of Michigan's land management policies and programs are protective of my harvesting in off-reservation lands	2%	20%	64%	12%	2%	264
Sensitive areas such as <i>wildlife corridors</i> should be preserved with minimal disturbance as open for public access	18%	42%	35%	4%	1%	264
Sensitive areas of <i>old growth forest</i> should be preserved with minimal disturbance as open for public access	21%	45%	26%	7%	1%	264
Sensitive areas of <i>wetland</i> should be preserved with minimal disturbance as open for public access	25%	48%	24%	3%	1%	264
<i>Critical habitat</i> such as winter deer habitat should be preserved with minimal disturbance as open for public access	24%	48%	25%	3%	1%	264
Sensitive areas identified for <i>prime harvesting opportunities</i> should be preserved with minimal disturbance as open for public access	22%	50%	25%	2%	1%	263
Enforcement of unlawful trash disposal should be a high priority	61%	27%	12%	0%	0%	264
Clean-up of unlawful trash disposal should be a high priority	63%	28%	9%	0%	0%	264



# Keweenaw Bay Indian Community Wildlife and Natural Resources' Survey Report

**Table F-5 KBIC Relations and Partnerships.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
Great Lakes Tribes	50%	44%	6%	0%	0%	264
Great Lakes Indian Fish and Wildlife Commission	45%	46%	8%	0%	1%	264
State Agencies (shared waters and lands)	34%	42%	16%	4%	3%	264
The Federal Government	30%	45%	18%	5%	2%	263
Other Great Lakes Tribe's fisheries and wildlife policies are good resources for developing KBIC policies	30%	52%	14%	3%	0%	263
Other State's fisheries and wildlife policies are good resources for developing KBIC policies	21%	46%	25%	6%	2%	263

**Table F-6 KBIC Tribal Members' Learning Interests.**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>No Opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Responses (n=)</b>
KBIC Home Territory (see map insert) subsistence food sources	21%	52%	23%	2%	1%	262
Keweenaw Bay sports and recreational activities	23%	57%	18%	1%	0%	262
Ojibwa language	31%	50%	18%	1%	0%	263
Ojibwa traditions	34%	52%	13%	0%	0%	263
Ojibwa cultural harvesting practices	34%	52%	13%	1%	0%	263
The 1842 & 1854 Treaty of La Pointe and KBIC Treaty Rights	29%	51%	18%	1%	0%	263
The KBIC-NRD and Hatchery wildlife management programs	25%	57%	17%	1%	0%	263
The KBIC-NRD and Hatchery fisheries management programs	23%	58%	17%	1%	0%	263
The KBIC-NRD and Hatchery water quality management programs	23%	58%	17%	1%	0%	263
The KBIC-NRD Hatchery air quality management programs	23%	51%	23%	1%	1%	263
The KBIC-NRD and Hatchery waste management	23%	56%	19%	1%	0%	263
Wildlife diseases	25%	57%	16%	1%	0%	263
Fish contaminants	28%	55%	15%	1%	0%	263
Title Ten hunting, fishing, trapping, and gathering policies	27%	52%	19%	1%	0%	263
KBIC relations with outside entities	29%	49%	20%	1%	0%	263
Volunteering at the KBIC-NRD and Hatchery	20%	38%	39%	2%	1%	263
KBIC Youth Programs	23%	46%	28%	3%	0%	263
The Lake Superior commercial fishery	23%	47%	27%	1%	0%	263

## **Appendix G: 3.4 Ojibwa-based Values, Knowledge, and KBIC Policies Respondent Comments**

### **G-1: KBIC Harvesting Laws and Policies, and Youth Programs**

There should be more law enforcement in the woods and on the lakes. Also why do we allow non-tribal to commercial fish outside our territories after enforcement is not allowed to investigate their activities. People are taking more deer than should be.

Don't know much about Title 10

I am not familiar with Title 10

I am proud of our KBIC Tribal Police and Conservation Dept., Level headed men and women who go about their jobs with common sense. The State and Forest Service could use people like them.

I think we had a good start with the Chassel spearing program but just a few individuals screwed the whole program up for all native sportsman who speared.

Commercial fishing need to be policed better, KBIC members often bear the brunt of malice from non-tribals due to a few careless tribal commercial fisherman. Also ghost nets should be a high priority. I myself have snagged two in the last few years.

2-B. Like I said, all nets should be banned in Lake Superior. The line should be by Carlas. In the bay, it should be a safe haven for fish. So fisherman can catch nice size fish, that even means KBIC fisheries, they put nets in the Bay-the Bay hasn't been the same since they put nets in there, all Net's out. After you's started fishing with net at the head of the bay, the fish population has gone down and it you's and others change this rule to be a hatchery not fish killer. Learn from others. Just saying Bay should be shut down for Net's (everyone should stay out) the herring and other fish have gone down a lot. So please stop this before it gets worst and there's no fish, for our kids that are growing up and learning our Nature and how it all comes together. So I hope I don't see nets in the Bay this year starting. PS: Wisconsin Tugs should not fish our Bay, this is our Bay! Res. Thank you.

I would like to see the Bay stocked with more fish such as salmon and lake trout with a tagging system to see how many are actually caught yearly.

I believe the tribe is infringing on my treaty rights to hunt and fish in some ways, and protecting tribal members It's almost non-existent as my nephew and I were held at gun point by state police for about 45 minutes to an hour until STATE DNR showed up and they called tribal police and got a white person (NON-TRIBAL) and didn't know what Indians are allowed to do!!! After 2 hours they told us to go home in case they need to come arrest us, thank you.

**HOLDING ALL ENVIRONMENTAL AND NATURAL RESOURCES PROTECTION HOSTAGE  
BECAUSE THE STATE OR FEDERAL GOVERNMENT HAS AUTHORITY OVER ANY OTHER  
ACTIVITY IE. GAMBLING, GAS STATIONS, ECT IS A NON STARTER! PROTECT THE RESOURCES  
GRANTED VIA TREATY RIGHTS-ALWAYS!**

3 [KBIC Tribal Code of Law: Title Ten] =all the laws made in writing like the non-native, the old way is how it should be. 6-N [Title Ten hunting, fishing, trapping, and gathering policies] =This is our culture. 6-Q[KBIC Youth Programs] = If we did more cultural teaching with our youth.

4-D [*old growth forest* should be preserved with minimal disturbance]. Where? Huron Mt. Club

It good for the youth programs for the summer

**G-2: Department of Natural Resources and Hatchery**

I would separate the fisheries/wildlife departments with environmental departments so they can be better

I am disabled and it would be difficult to volunteer

Would like better maps of depth of Lake Superior.

I appreciate how KBDNR has grown and continues to keep the good of our area intact, with an ongoing progress which will only have a positive impact for our tribe and Earth. Megwetch!

**G-3: Traditional and cultural knowledge and practices**

I think that cultural activities and teachings should be offered more often in our community especially to the youth

I tried to learn the language but it's harder than English

Sad to say, I am ignorant of many things pertaining to the Ojibwa Culture. I want to educate myself and have a good understanding. I don't like to participate in things that I don't understand. Any human can make mistakes and I refuse to do something just because someone else does it. First I have to understand the meaning, origins etc, how these things come about and by whom. Is it in line with what our Creator God has created us for?

I strongly believe that "we" as a Tribal peoples always have room for knowledges of section C

1-K [significance of clans in Ojibwa culture]. KBIC Needs to work harder on this one!

We would love to learn all we can about our ancestors and the real Ojibwa war of life and stories.

**G-4: About the Survey Comments**

I feel that these questions should have been either 1, 0, maybe, not sure. Instead of strongly agree, agree etc. Because some questions I would like to have put a 1 or 0 or not sure answer

I hope my answers help answer some questions.

Great Survey

Hope my comments can help in this survey.